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Lectures on Surgery

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Diseases in wh Respiration is impeded

In some cases it becomes necessary to make an artificial opening into the Windpipe. The Trachea has been generally cut, but of late years the French writers have recommended a new method wh is to pass an Elastic Catheter into the Glottis —

The causes rendering this Operation necessary are many 1st Various inflammatory affections of the throat wh are common in our Climate. They seldom cut off the access of air to the lungs. Tho' they sometimes do

2d Tumours sometimes impede respiration by pressing on the Œsophagus & Trachea or Windpipe lessening the size of this latter canal

3d The tongue is often so much tumefied from the use of Mercury as to press on the Pharynx & Œsophagus & produce the same effect

Extraneous substances lodged in the Glottis or Trachea

4 In deep wounds of the neck from an attempt to commit suicide we are obliged to incline the Head forward so as to keep the parts of the wound in con-

tact, as being unfavourable we are obliged to introduce the flexible Catheter. In all such cases of in apparent death from submersion, the flexible Catheter of Desault is far preferable to Tracheotomy this being entirely unnecessary

When the Elastic Catheter is just into the Glottis, it occasions much uneasiness & Cough from the irritation, but there is is no danger in in leaving it 3 or 4 days & weeks, as experiments have fully shewn, the irritability being far less than we wd at first suppose. When first introduced it excites a convulsive Cough particularly when there is inflammation as in Angina. When there is a tumour in the mouth pressing on the trachea, it is easy to pass it in the Glottis thro' the nostrils. It is also proper when foreign substances are introduced. In the case of the man who swallowed his money for fear of being robbed Desaults Elastic Catheter wd have been introduced & succeeded instead of Tracheotomy. In fact, it has many advantages over it. there is no difficulty in the oper-

ation, there is no hemorrhage, no wound & no fis-
tulous opening — How long a catheter may re-
main in the windpipe without uneariness we
may learn frm the case in the Hospital at Lyons —
there were 2 Catheters introduced, one in the Pha-
rynx the other in the Glottis — by the first he
was nourished by the last he breathed. Tra-
cheotomy is sometimes necessary when foreign sub-
stances are lodged & cant be coughed up — Polypi
& excrescences impeding respiration so materially as
to render it necessary seldom occur. —

Foreign substances are frequently lodged in the ven-
tricles of Galen. & when they are, they must be
very small. It is known by violent Coughing
& difficult respiration — An opening shd be
made below, & the substance pushed up with a
probe. It is easy to distinguish the introduction
of the Catheter into the Glottis frm its entrance
into the Oesophagus — a Catheter shd be used
twice as long as that employed for the urethra
It shd be taken hold as a writing pen & intro-
duced into the Nostrils & then into the Glottis

When A enters the Glottis there is a Cough, tick-
ling, inclination to Vomit, & the flame of a can-
dle is blown to one side by the air rushing out

When it enters the Pharynx & Oesophagus, there
is less irritation, no cough, & the air is not forced
out. A small Syringe full of water or milk
injected thro' the tube, is another means by wh
you may incontestibly ascertain when the Catheter
is introduced, for if the fluid goes to the Glot-
tis, there will be cough irritation &c and if to
the Oesophagus no such effects will be produced

When the flexible Catheter is thus introduced,
it shd be secured there, & gauze put over the mouth
of the tube to exclude all extraneous substances —
The tube shd often be removed & cleansed Frequently &c

Bronchotomy. There are 2 places
where the puncture has been made: One on the
lower part of the Larynx & the Trachea, or between
the rings of the Windpipe. If foreign substances
are introduced, there may be a longitudinal
puncture or division. Of late years the French

& Surgeons

writers have divided the Larynx between the Cricoid & Thyroid Cartilages, there being in that part Skin & Cellular membrane only. There is then no Hemorrhage a matter of much importance, as it occasions a delay in the Operation. & if any blood were to fall into the Glottis, it would produce much uneasiness. The Thyroid or Cricoid Cartilages may be cut without danger. The Larynx is so well [illegible] that you may cut into it without [illegible] the Trachea professes to [illegible] there is danger of wounding the Carotid Artery — Laryngotomy far better & safer.—

Operation for Laryngotomy

The Patient is to be seated with his head inclined a little backward. The surgeon is to be before the Patient. & feel for the space between the Thyroid & Cricoid Cartilages. An incision is to be made in the direction of the Trachea an inch long from the bottom of the Cricoid to the Thyroid Cartilage with a Bistory. It is then

proper to wait until the Hemorrhage ceases, when a perforation is to be made in the membrane between the Thyroid & Cricoid Cartilages this may be done by a Scalpel: The edges of the wound are to be seperated & the Scissory passed low down, to avoid the artery under the Thyroid Cartilage. A silver tube or Canula shd then be inserted (of an Angular shape) into the opening — Sticking plaister may then be fastened to it, & thro these 2 holes, tapes may be passed. when thus introduced into the Trachea. Its own shape will retain it there — The tube shd be often removed to clear it of mucus. & gauze put over it to prevent the introduction of foreign substances. After the tube is removed & the patient becomes well, adhesive plaister is rarely necessary —

If foreign substances exist in the wind pipe the Trachea may be stretched by the Forceps to admit their being extracted — or the Cricoid & Thyroid Cartilages may both be cut thro. if necessary, without danger. —

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Obstructions in the Pharynx & Oesphagus, when to any extent endanger life by cutting off the usual supplies of Nourishment — Laryngotomy becomes necessary when there is a Spasmodic Stricture of the Glottis. for if a bougie be passed into it, so much irritation will be produced, as sometimes to cause death. When the Oesphagus is cut for attempts to commit suicide, no attempts to swallow are successful, the fluid returns by the mouth, or thro the wound! — Sometimes foreign or extraneous bodies enter the Oesphagus. A boy who was eating a dried peach had the misfortune to let the Stone slip down fm the Pharynx into the Oesphagus, where it was retained by a Spasm of that Organ — I once saw a preparation of the Oesphagus in Mr Hunters Collection in wch a half crown was retained by a similar Spasm — the man was in the habit of swallowing half crowns for the Students, & after many successful swallowings, he one day got fixed. The first Surgeons in London could afford him no aid by probangs or hooks — At last vomiting Hemor-

charge & death succeeded. Other bodies, such as a large piece of meat not sufficiently masticated are sometimes stopped in the Oesophagus by a Spasm & retained there for many days. The instrument generally used is a probang, made by tying a piece of Sponge to a flexible whalebone, or what is better a Bougie. This instrument dipt in Oil or Molasses is introduced thro' the Pharynx into the Oesophagus whereby moderate force it is easy to push the extraneous substance into the Stomach. At times however the obstruction is so violent that this is impracticable. In the case of the Peach Stone & other substances simply lodged I have used a Solution of Tart: Emetic 6 gr to 12 tablespoonfuls of water. & directed the patient to gargle it in his mouth. & if possible to swallow some. As soon as Nausea is produced. there has been a relaxation of the parts, the Spasm ceases & it was easy to push it down into the Stomach or swallow it. In the same way I was succesful with a large piece of meat wh-

was

was fastened, & once with a Cent. The agita-
tion & distress of the patient is extreme, & when
the Probang has proved fruitless (for by pushing
too hard you may break the Œsophagus) the Tart
Emetic shd be tried. In some cases the head of
a bone, a pin, or other small pointed bodies
stick in the Tonsils. By opening the mouth &
introducing a pair of Curved Forceps you may
extract them, if so low that you are unable to
see them, you may feel them with y^r finger &
direct the Forceps by that. When so lodged that
you can't extract them, you may be sure suppu
ration will take place, they become loose, & at last
swallowed — It may be proper to observe, that how-
ever sharp the substance may be, there is no dan-
ger y^r its wounding the Stomach & Intestines, a
circumstance always of Anxiety to patients

A Tumour in the neck so situated as to press
the Œsophagus sometimes impedes deglutition —
Large Schirrus Tonsils & Locked jaw produce the same

effects. Stictures in the Oesophagus are not common, but are often very obstinate so as to preclude the possibility of swallowing. There are 2 methods of nourishing a Patient in this situation 1st By Clysters
2° By a tube passed into the Stomach
Clysters cannot afford sufficient nourishmt & are not to be relied on. M Hunter used a seal skin. Desaults Catheter thro the nostrils & passed on the nose strait down into the Stomach is the best means of accomplishing this end. If any difficulty occur, a curved Stillett may be used. A syringe filled with rich soup may easily be conveyed thro the Catheter & if it enter the Glottis instead of the Oesphagus, the blast of air & great irritation will soon convince you of the wrong direction of y^r Catheter —

A swelling y^r inflammat^n of the Pharynx may also impede deglution. —

Stricture

Structure of the Oesophagus.

As this is a Muscular Canal & capable of Contraction. It is sometimes the seat of Spasm — There is a narrowing of the parts, thickening of substance, & at times a total obliteration of the Canal. It precisely resembles Structures of the Urethra, & are also found permanent Strictures occurring here. — The difficulty of Swallowing increases, until Fluids only can pass, & even these at last produce suffocation from passing into the Glottis instead of the Oesophagus. Hunger emaciation & ennui, and the patient is literally starved to death. Suffocation is induced from any attempt to pass the instrument into the Oesophagus; during this last stage. Mr Howe says a Bougie of waxed linen shd be used small at first, but gradually increasing in size. It shd be treated just like Strictures of the Urethra. Two bougies shd be at Hand; with one passing into the Oesophagus you feel the Stricture & then making the Patient close his mouth, let him mark with his teeth the place — To the other

bougie affix Caustic, & mark by the first wh entered the depth it shd go. In this manner apply the Caustic to the Structure once in 24 hours Let the instrument armed with the Caustic have the same curve as that wh first entered, that the Caustic may not be applied to sound parts & create unnecessary pain. —

Polypi. —

These excrescences arise Spn the lining membrane of the nose, Rectum Uterus &c They are produced by a thickening of growth of the Schneiderian membrane. They most frequently exist in the Nostrils, & appear like a small pendulous tumour — There is no pain at first, the eye is watery & much sneezing It commences at the inferior turbinated bone is sometimes soft, at others hard, at times insensible, at others acutely sensible — sometimes pale, at others red or livid — sometimes bleed profusely, at others not at all — They arise Spn the Ossa Spongiosa, & all parts wh form the cavity of the nose —

At first the Symptoms are light, but after a while there is a defluxion $\overline{\text{on}}$ the eyes, sneezing, & there is an alteration in the voice. Their size changes accord^{g} to the weather, being smaller in dry & larger in moist weather! After they increase much in size, no air enters the Nostrils. Breathing is considerably affected, & there is a peculiar nasal tone of voice. When it projects out of the nostrils & thro' the Posterior Nares into the fauces, that portion within the fauces increases very rapidly. The Polypus assumes the form of the cavity of the nostril, fitting it like a mould. It extends $\overline{\text{on}}$ the anterior Nostril & fauces behind over the soft palate & behind the Uvula. The eyes are suffused with tears & there is an obstruction to the Ductus ad Nasum. At times there is an ulceration & discharge of fœtid matter, the tumour is often large & without pain, the patient sleeps with his mouth open, the hearing becomes at last injured by pressure on the Eustachian tube, & deglutition difficult $\overline{\text{on}}$ pressure on the Velum

Decubitum Palati – The root of the nose is swol-
len, the head aches the bones are carious an ul-
cer is formed, hemorrhage takes place, the teeth fall
out, a fungous exists in the Socket, & Stupor Coma
& Death close the Scene. The causes are unknown
for those are certainly in an error who suppose
they arise from picking or blowing the nose.

Polypi may be extracted from the nose in 3
different ways

1st By Cutting it out

2° By seizing it with Forceps & pulling it away

3° By passing a wire round it so as to inter-
rupt the Circulation to it, cause its death, & sepera-
tion by the absorbent vessels – The wire is to be fixed
round the Base of the Polypus, drawn tight & fastened
by winding it round the handle of a Canula –
Polypi generally grow from the inferior turbinated
bone – They are visible in the Anterior nares, and
project behind the soft palate in the throat. The
curved Forceps frequently answers to pull it away
from its attachment, & the pinching also greatly

aperts in promoting its death – A portion how-
ever of the Polypus is only removed, sometimes
requiring a repetition of the operation – At times
the turbinated bone & whole of the Polypus is remo-
ved rendering the operation complete – The he-
morrhage from extraction of the Polypus has greatly
alarmed many Surgeons – When you first take
hold of the Polypus with the Forceps, the hemor-
rhage appears to be great, but never let this
alarm you, for it is not of long continuance, the
wound is a lacerated one & the vessels can be ea-
sily closed – A Plug put thro' the nostrils in the
posterior nares, or stuffing the nostrils with lint
or tow will effectually stop it. I never had oc-
casion to do this but once & then I wd not
but the man had a considerable distance to re-
turn home. where had any hemorrhage occurred
I could not have seen him for sometime. –

Unless the basis of the Polypus is very large, it
is easy to extract in this manner – When this is
not practicable, a ligature of flexible silver wire

passed thro' a double Canula, & that in the Nostrils over the Polypus – You pass the wire thro' the Nostrils & push it to the root of the polypus by means of a Curved probe – the wire is then to be drawn tight round the Polypus by pulling it thro' the Canula – The Circulation being thus intercepted it will die & be seperated by the absorbents in 10 or 12 days

When the attachment of the Polypus is by a very broad basis, neither the Forceps nor wire will answer, & then it is to be cut away by a curved blunt bistory passed between the Nostrils & polypus – It is necessary in this case to make compression by the Tow – If you see the basis of the Polypus & think it will rise again. It is proper to apply caustic to its root – this is to be done by a pair of Forceps, one side of wh^ch is to be covered with linen spread on Beer Wax passing the other s^de is bare & uncovered to the Polypus – When the Polypus projects into the throat, the ligature

passed into the Nostrils by a double Canula, &
with a forked probe is to be fastened on the Po-
lypus, or by putting the finger in the throat
& fauces, & pushing the wire round the projecting
end of the Polypus - The Canula is to be kept-
ued 7 or 10 days. The Polypus often becomes sud-
denly loose, & falls down in the Pharynx, where fm
its large size, it being impracticable to cough it
up, it produces suffocation by falling over the
glottis - I have actually heard of death being in-
duced in this way - It is therefore prudent if pos-
sible (I say possible for it is no easy matter) to fas-
ten a ligature on the Polypus projecting in the
fauces by wh means it may be easily drawn out
or with a hook twice a day catch hold of the pro-
jecting end, & see if it be loose enough to extract
A case came under my care where the Poly-
pus thus suddenly fell down in the Pharynx. I
found the patient on his back, & when I told him
to get up & let me examine his throat, he told me

if he got up he wd certainly die. When lying on his back, the Polypus fell to the Posterior part of the Pharynx & he breathed easily, but when in an erect posture it fell over the Glottis & obstructed respiration. I took hold of it by a hook & thus extracted it, but it is a dangerous Circumstance, & this cd be obviated by one or other of those Cautions just mentioned. —

In a Patient at the Hospital where the wire & Forceps had both failed I made use of a piece of tape stiffened by means of a flexible Silver wire run thro it. The tape I passed thro' the mouth over the end of the Polypus projecting in the Fauces. & tied a knot over the end of it taking great care not to include the Uvula in the knot — When thus secured, I with a little force easily extracted it. —

Hare Lip.

This is generally situated on the upper lip & is so called fm its supposed resemblance to the lip of a Hare. Sometimes only one & at others two fits exist. People are generally born thus, Altho' it may be produced by accident, & when the divided surfaces has not been brought into contact as necessary. When they are born thus the fissure sometimes extends not only thro' the soft parts, but thro the bones also, the superior Maxillary bone & palate forming a communication fm the mouth to the nose. When the fissure is fm the mouth to the nose, the fluid in swallowing often runs out fm the nose, & the voice & speech are very materially altered. In all such cases it is necessary for the Surgeon to make a recent wound of the Harelip, & secure it by the interrupted or twisted suture. Sometimes it happens that a tooth or piece of jaw bone projects. In the first case it is proper to extract the tooth, in the

last to remove the jaw bone. —

If the Patient be troubled with a Cough, it is improper to attempt the operation, as a fit of coughing will burst the pins after they had secured the divided Surfaces. It has been said that the operation is improper & unsafe in Children - Nothing can be more erroneous - there is as much safety in the operation on a child of 2 or 3 yrs old as if it were 20 or 30. —

When a double fissure of the lip exists, operate on but one at a time, for if both were operated on at once the inflammation excited will be so great that the ligatures will have to be divided & thus render the operation abortive - It might even end in Mortification. —

If the fissure shd extend thro' the roof of the mouth to the Palate it shd be opened in infants as soon as possible, as the sides of the fissure may be torn off. It is proper when you take off the edges of the fissure to do it completely, extending the incision above the upper angle of the fissure, for wh

a^n purpose a pair of Scissars is the best instru-
ment. After the whole of the edges on each side of
the Fissure are divided - 2 pins either of silver or
gold with a moveable Steel point are to be intro-
duced thro' each side of the Fissure. Ligatures are
to be fastened round the pins in the form of a
figure 8. It is proper to let the pins remain 4
days, when an union of the sides of the Fissure takes
place - Remove the Pins by pulling them directly
out - Ligatures frequently adhere to the Fissure by
coagulated blood, they sh^d be suffered to remain,
as they perform the part of adhesive plaister, &
will afterwards voluntarily drop out. If the pins
are not removed in 4 days - Ulceration will un-
der the Cheek large & produce disfiguration

Celsus

Schirrus Tonsils.

These nearly fill up the whole of the Fauces & by means deglutition is impeded, & the voice impaired — It is proper to extirpate these tumours, for tho' they are called Schirrus they have nothing cancerous about them, & there is only a thickening of the part by adhesive inflammation. When the basis of the Tonsils is small so that the whole can be cut off in one or 2 strokes, it is best to use the curved Scissars, called for their use Tonsil Scissars, but when the base of the Tonsils is broad, & it is necessary to cut with the Scissars several times, then they shd never be used, as on the first incision the blood will coagulate in the fauces & prevent you from seeing the Tonsils. Some also is apt to fall into the Glottis & cause coughing, & interupt the operation, the Hemorrhage is never large, but the inconveniences is great. —

The Second method is to tie a ligature round the base of the Schirrus Tonsil so as to stop the

Circulation, produce death, & cause a seperation by the absorbents - The time of seperation is va- rious fm 6 to 10 days. The wire must be passed thro' a double Cannula, a noose made on the projecting tonsil, & tied to its base by drawing the double Cannula: As the Cannula is often dis- agreeable to the patient: it may be sufficiently Strangled in 2 days & the edges of the part clip- ped off with a pair of bent Scissars - the parts be- ing dead there is no fear of any Hemorrhage occur- ring. It is therefore preferable to leave the Cannula & wire for 2 days at wch time by clipping off the edges of the Tonsil, the Cannula & wire may come away. —

We are often called in to open Abscesses in the Tonsils, & to Scarify them - This is often done with a Scalpel covered with a rag excepting at its point. A much better instrument is a Lancet Concealed in a Cannula & made either to project or draw back. When this is introduced the tongue can be held down by the Cannula & you have just to project the Lancet out. But when the Scalpel is

used, one hand must be employed in holding down the tongue with a Tablespoon. The depth to wh you desire is regulated by a Screw

Hernia.

By the term Hernia is meant a tumour made by the protrusion of some part or parts wh are naturally contained in the cavity of the belly. The tumour most generally occurs at the naval, at the Groin, & the upper & fore part of the thigh - Hence the division of Hernia into Umbilical Femoral & Bubonocele. The protruded parts commonly consist of the Omentum & a portion of intestine, but occasionally each of the Viscera of the abdomen has been found in the Hernial sac, wh sac is formed by a protrusion of the Peritoneum. —

The term Rupture very improperly applies to Hernia. The only exception to Hernia being formed by a protrusion of the Peritoneum occurs in the Hernia Congenita - In this Species of Hernia, the

Sac is the Tunica Vaginalis Testes. When the closure of the upper part of the Tunica Vaginalis, does not take place soon after the descent of the Testicle, as it commonly does, Hernia Congenita may be formed by a portion of Intestine insinuating itself into the opening. The existence of Hernia is known by a swelling, beginning at the ring of the external oblique muscle, & proceeding downwards to the Testicle. The testicle can be felt below & behind the tumour in most cases. The gut goes up when the patient lies in an Horizontal position with his hips elevated, or it may be pushed up by the Patient or Surgeon. The gut protrudes when the Patient is in an erect posture, & when he coughs. The tumour is not painful & bears handling well. —

Bubonocele has been mistaken for other affections, & other affections for it — The follow^g has been mistaken for Bubonocele viz

Venereal Bubo

Swelled Testicle
Hydrocele
Lumbar abscess

1st In Bubo, Chancre precedes on the Penis, the glands are Swollen, & inflamed, hard & painful — It does not bear handling, there is ~~an~~ via interruption to the passage of Alimentary matter fm the Intestines (wh frequently occurs in Hernia) In its advanced stage when it suppurates you will be sensible of the fluctuation of matter — Add to these, Coughing or any exertion of the Diaphragm, & abdominal muscles have no effect upon it. The tumour does not disappear on lying down

2d Swelled Testicle may be distinguished fm Hernia by the swelling being in the body of the Testicle at the bottom of the Scrotum. The Spermatic Chord may be distinctly felt. The tumour is solid, heavy & flattened on the sides fm pressure of the Thighs. it does not retract on lying down, it is tender to the touch, & is gener-

ally the consequence of suppressed Gonorrhea

3° Hydrocele is distinguished fm Hernia because it begins on the lower part of the Scrotum, the tumour is Circular, & the fluctuation evident - it is generally Diaphanous so that you can see thro it. The Spermatic chord can be distinctly felt. ~~The tumour is solid, heavy, & flattened on the Sides fm pressure of the thighs~~ - it does not retract its size is not altered by position or any exertions. -

4d When the tumour is formed on the upper & anterior part of the thigh by the matter of Lumbar Abscess you can feel the fluctuation of the matter fm the belly to the tumour on the thigh & in a contrary direction. Very dangerous & even fatal consequences may arise fm mistaking Hernia for any of these affections. If for instance you mistake Hernia for Hydrocele, & inject a Stimulating fluid into the Herneal Sac, it is not easy to conceive how much mis

chief may result. —

Cysts high up in the Spermatic Cord bear a stronger resemblance to Hernia than any other disease. The whole of the tumour may be prest up into the abdominal ring. But as soon as the pressure ceases it descends to the Scrotum. Lateral pressure has no effect in diminishing the size. & the whole of the tumour may be pushed up as one Solid mass. If a candle be brot near, it will appear diaphanous By this last sign particularly I extricated myself fm great difficulty in such a case, when to add to the embarrassment, coughing & exertion produced a very sensible effect on the tumour

The Causes of Hernia are weak abdominal Parietes, Strains — general debility disposing to it, hard Coughing, raising heavy weights, violent exercise, & in a few instances Pregnancy

Hernia seldom exposes the person to much inconvenience when it goes up on lying down, but

as long as it continues down. There is constant danger of its being stricture by the abdominal ring & of inflammat^n taking place. Therefore it is always proper to return the protruded parts or intestine into the abdomen as soon as they come out & prevent its descending again by a Truss. A Truss is composed of a Slender steel Spring long enough to go round more than one half of the body, the other part being composed of flexible leather / with a pad fixed to it, & an under strap to keep the pad from slipping up

Hernia has very properly been divided into the follow^g Stages

1^st That w^ch admits of easy & immediate reduction

2^d That w^ch requires judicious treatm^t to effect it, reduction

3^d That w^ch cannot be reduced altho' there is no stricture

4^th That w^ch requires a Surgical operation —

The Patient can generally return the intestine himself: if not, the Surgeon may do it for him

after laying him on his back with his hips elevated, by the operation called Taxis - After the Hernia is reduced apply a Truss with a steel Spring & firm pad - Be very careful to apply the truss in the right place, or it will be of no use & even do harm - You may easily find the ring by feeling for it, & the pad of the truss is to be applied directly over it - The lower edge of the truss just above the upper edge of the Os Pubis - As soon as applied, button it round the body - In every case where this can be done, it ought to be, & the hazard of stricture if will be avoided

But there is often much difficulty in returning the protruded parts into the Abdomen

The causes of this difficulty are

1st The large quantity protruded

2d From adhesions existing between the sac & its contents, or between the different parts of the Contents of the Sac

1st When it is difficult to return the protruded parts on accot of their bulk, place the Patient in

a horizontal position, with the feet of his bed ele-
vated. And to empty the contents of the bowels
in the sac, prescribe purges daily. very low diet
Ther. also be used. If these means assisted by the
Taxis fail. it is proper to suspect that the pro-
truded parts are altered in shape, or that adhe-
sions exist. In either case to prevent further mis-
chief, advise the use of a Suspensory bag to sus-
tain the weight of the protruded parts. to prevent
their increase. If the Patient neglect to use it, or
is careless. the intestines are liable to Stricture
all violent exercise Ther. be avoided, & the bowels
kept gently open

Strangulated Hernia. The

tumour wh. before was soft becomes hard & pain-
ful to the touch difficulty of standing upright fol-
lowed by Nausea. Faces are sometimes vomited
& obstinate Costiveness. Frequent, hard, contracted pulse
& considerable fever. When the Stricture is very
great, so as to prevent the return of the blood by
the veins, inflammat^n & swelling succeed. The
colour of the intestine is much darker than fm

common inflammat^n occasioned by the compression made by the Stricture preventing the return of venous blood, & mortification sometimes ensue — It is very remarkable that delirium seldom takes place. It is said the Symptoms are not so violent for protrusion of the Omentum

If Mortification has taken place it may be known by hiccough, cold extremities, cold & clammy sweats &c

Treatment — As long as strangulation continues life is in imminent danger — The body sh^d be placed in a horizontal position, with his hips elevated, in this posture, gravity favours the return of the protruded parts. The thighs are to be brot close together & bent to a right angle with the body — the feet of the bed sh^d be higher than the head — You will find the Patient himself endeavouring to reduce the Parts — The Surgeon sh^d grasp the tumour, & try to empty the Sac, pressure is to be made behind upwards & downwards towards the Anterior Superior Spinous process of the Ilium — The pressure sh^d not be very great

great, as the parts may be injured. -

If Taxis fail other remedies must be resorted to viz V.S. ad deliquium Animi, Tobacco Clysters Cold & warm bath & Opium & Opium. If bleeding fail the warm bath to 100° and the patient kept in it until the Taxis at which time our efforts shd be renewed. I have used mild Purgative remedies as a mixture of Cream tart: & jalap - but if they produce sickness at Stomach & vomiting, Clysters may be used - M^r Hay says no Purgatives shd be given by the mouth - but in Entero Epiplocele or simple Strangulation of the Omentum they are very advantageous. In old & large Hernia also where there is a morbid affection of the intestinal Canal, they are of much use. Vomiting is frequently removed by Opiates - Tobacco Clysters are used by every one, made by pouring a pint of boiling water upon ℥i of Tobacco - When this is injected into the bowels, it induces universal relaxation of the System. you may then often suc-

ceed by Taxis – If this fail very large doses of Opium has succeeded – Next Cold Shd be used pounded ice applied in a bladder over the tumour & the abdominal ring – if ice is not to be had, Cold water with a Solution of Glaub: Salts & Sal Ammon: They cause a diminution of the protruded parts & Stricture – Opiates suspend the sickness & Vomiting, but large doses Shd be given, say 2 grs to adults by the mouth & if injections are used ℥ij of Laud: —

If relief be not obtained by some of these means, the symptoms may remain Stationary for a day or two – much more frequently however, every symptom becomes worse, the sickness & vomiting becomes more distressing, the swelling of the tumour & tension of the abdomen greater, & there is great restlessness. After a while the pulse flags & the patient sinks, hiccough comes on, tension of the abdomen abates, the Hernia is spontaneously reduced, & the patient feels easy. These deceitful appear-

ances however are soon followed by death, as these
are owing to mortification in the Cow-
ats of the Peritoneum or Spⁿ Cotte
W^m Howe says a general coldness
nded with moisture is always a
death. — This unpleasant termina-
tion may be frequently prevented by an operation
which consists in dividing the stucturing parts
to prevent the escaped strangulation of the in-
testines for several days without the operation
it has been in question with Surgeons with
Surgeons a[bout] the operation should be performed. I
think it will be no[t] proceed to the op-
eration immediately [up]on failure of the means
above mentioned [th]e operation should be performed be-
for[e] [in]version of the abdomen occurs, in-
[in]dicative [of] inflammat^n of the Peritoneum. The
young [ma]y bear the Operation better than the
middle aged. — If performed in the manner I
shall presently describe without opening the

Hernial Sac very little hazard attends — When the sac is opened, there is danger fm Peritoneal inflammat^n & ^t generally proves fatal on the 3^d day

Operation. — Before proceeding to the Operation, shave off the hair: place the patient on a table covered with several blankets. his head elevated by a pillow — The first thing to be done is to lay bare the tendon of the external oblique muscle & the part performing the Stricture — This is done by commencing an incision 2 inches above the tumour & bringing it downwards 2 inches on the tumour when you cut upwards & a little outwards you cut the fibres of the external oblique muscle, not transversely but in their direction of the tendon —

Having thus exposes the upper part of the tendon the next step is to lay the ring bare — dissect downwards removing the adipose matter till you come to the ring — If the Stricture be made by the ring, you will see a depression there directing

After you divide the Skin & Scrotum, you find tendinous bands at appear to be the fascial of the external oblique - Next you come to the fibres of the Cremaster muscle - then the Herneal Sac The Spermatic chord lies in the upper part - the Testes at the lower - Between the neck & the Symphisis Pubis lies the Epigastric Artery - In some rare cases it lies anterior to the Spermatic Chord, tho generally behind. —

you where the next incision is to be made — A hole is then to be scratched thro' the tendon just above the Stricture — & introducing a director, bring it out below the ring under the sac, & divide the tendon by running a knife along the director — Cut in their direction & divide the Stricture. The Stricture being removed you may return the intestines by the taxis without opening the Sac

This operation succeeds in most cases of recent Strangulation — It is always advisable except where the symptoms shew mortification has taken place — the Cavity of the abdomen is not exposed, neither is the peritoneum cut; & if it does not succeed we are still able to open the Sac —

Sometimes after dividing the Strictured parts the intestines cannot be returned in consequence of their parts having altered their shape or of adhesions among them in this case it is necessary to open the Sac — In doing this the finger

* the whole of the blade covered with wax except just at the point

Sh^d be introduced to serve as a director; the in=
cision of the sac is then to be carried on to the
bottom, & within a small distance of the top,
but not entirely to the Stricture as the cavity of
the abdomen sh^d be unnecessarily exposed - It is
to be cut with light nice strokes of the knife
Sometimes there is a fluid found at the bottom
of the Sac - this is often the case in Omental Hernia
In opening the Sac you will will discover
what cause prevented the success of the first oper-
ation - The Stricture is to be sought for by run-
ning the finger up on the outside of the hernia, &
continuing to pass it on, untill it reaches the
Stricture, & sh^d be pushed into the Stricture as
far as it will admit - a small Curved pointed
Bistory^r is to be passed by its side to the Stricture -
it sh^d then be turned & the Stricture divided, cut-
ting upwards - the finger is then enabled to pass
farther, w^h sh^d be done & the part divided in
the same manner - M^r Cooper advises to cut

between the sack & ring — but Mr. says it is best to cut upwards & outwards, so as to slit the tendon of the oblique instead of cutting it across — But there is some danger in this way as the Epigastric artery sometimes passes on the outside — I always prefer dividing it in a direction directly upwards, for then we are in no danger of wounding the Epigastric Artery, for if it is either inside or outside it is avoided.

If adhesions prevent the return of the parts seperate them with y^r fingers, or if necessary very cautiously with a knife — If an alteration of the shape of the protruded parts prevented dilate the stricture sufficiently to let them return —

If the intestine & Omentum be both contained in the Sac the Intestine shd be returned first If the Omentum be altered in shape & difficult to return, it may be cut off.

Sometimes the Stricture is formed by the neck of the Sac itself — in this case if the Stricture can be felt it shd be divided in the way already

described. —

In every case where the Symptoms shew mortification has taken place, it is proper to open the Herneal Sac — If the intestine is Sphacelated. a puncture sh^d be made thro' the mortified parts immediately, that the Faces may flow out, wh will relieve the patient — If it be mortified all round it sh^d all be cut away & the 2 ends brot out & confined to the sides of the incision with the Mysentery by Stitches (4 Stitches will do) thro' wh the Faces will be discharged — The 2 ends of the intestine will then resemble a double barrelled gun Then make an opening from one into the other thro' the Contiguous Lateral Septum 1 or 2 inches from the sides of the intestine — By keeping a compress of soft Linen or tow to the open mouths, the patient will be tolerably comfortable & the Faces will pass thro the opening & eventually be discharged p^r Anum

Sometimes only the internal Coats are gan-

grievous, & the bellows entire — In this case, open this to discharge the fæces & keep the intestine by stitching it to the side of the abdominal ring the parts will gradually heal & retract when the ligature is cut

If a part of the Omentum be mortified, cut it off with a sharp pair of scissars — first carefully spreading it out to see if any intestine be contained in it — Take care always to cut on sound parts — You judge of dead parts from living by blood being coagulated in dead parts — pressure does not empty the contents, a cut in the vein shews coagulated or grumous blood, & does not bleed — Now if you cut a sound part, fresh blood will spurt out — If any vessels bleed much, they must be secured by ligatures the ends of which being out of the wound.

Never tie a ligature on any part of the Omentum except its vessels when bleeding See Pott — Sometimes a ligature may

be tied round the neck of the Sac not so tight as to stop the circulation, but only to make the sides adhere, & thus prevent a return of the disease

(After either operation apply strips of adhesive plaister) — If any part of the Scrotum be cut let that part be stitched

I have known Strangulated Hernia taken for Colic. & therefore it is always proper in obstinate Costiveness, especially in women, to enquire whether there be any tumour in the groin or part of the thigh —

The patient is to be kept in a horizontal position to avoid straining in Evacuating the intestines, & allay his Cough by demulcents &c taking care not to exhibit opium so as to produce Costiveness. A few hours after the operation generally produces a stool, but if this dont take place, they are to be aided by Castor oil, the bowels being often rendered weak & Paralytic by the compression they have undergone — Pain & tension of the abdomen, or any indication of fever call for

The wound is to be stitched - & a pledgit spread with mild Cerate applied, over that a compress & the whole secured by the T bandage

the Lancet, Purges, & a Blister to the abdomen. As soon as the wound heals, a truss is to be applied, or the bowels will descend again. —

When it has n[illegible]ecessary to cut the ring high up, o[illegible] back & abdominal ring alth[illegible] opened the Sac, a Truss is necessary.

As any bandage round the abdomen diminishes the [illegible] of its contents & cause pressure ad: plaister [illegible] recommended. Cut it soon yields [illegible]ver — Two steel springs are the be[illegible] this purpose one part of it has a [illegible] a Compress is filed — This has 2 points of pressure, one on the back, the other on the Naval — It is to be covered with Buckskin leather

Femoral Hernia

takes place in the upper & fore part of the thigh The substances forming the tumour are contained in the Aponeurosis Covering the large bloodvessels. The Stricture is occasioned by the arch of the

~ This do very cautiously for the sack is often extreme-
ly thin

Tendon of the external obliquie or Poupart's ligam^t
Mr Hay says the Fascia lata of the Femoral lig-
ament causes the Stricture

When it is necessary to perform an operation for
a Stricture here, it is best to open the Hernial sac
in the first instance^ce. — After having opened the
sac great caution is requisite in dividing the Stric-
ture so as to avoid the Epigastric Artery, the Sper-
matic Chord & great Crural Vessels. When the
instrument enters the Crural arch, you will be sen-
sible of resistance — Consider the Structuring parts as
a ring, on the outside of w^ch the Epigastric Artery, &
the inside the Spermacetic Chord lie - Posteriorly the
great vessels

Mr Cumbernot proposes to cut so as to divide
this ring next the Os Pubis, & this is certainly the
best method — It may also be cut outward — very
little cutting divides the Stricture

If the Hernia is posterior to the large blood vessels
after laying open the sac, a curved director is to be
passed upwards & towards the Pubis — then intro-
duce a Bistory in the grove of the director, the
edge towards the Pubis — & then dividing the

structure by cutting on the director

Umbilical Hernia. —

Always endeavour to return the intestine & prevent their protruding by means of a Truss recommended by Mr Key. It is made of 2 steel springs of a semicircular form with the ends connected to a ring, from the sides of wch pass 2 smaller springs, running from the circumference of the ring to the Centre, to the end of wch is fixed a compress to press on the umbilicus. The long springs are made to press on the body behind & before, only laying loose on the sides. —

When Strangulation occurs, use all the means already mentioned in Bubonocele to return the protruded parts — if these fail the Stricturing parts must be divided. but you are to recollect that the Hernial Sac is very thin, so that you can often see the bowels thro' it — The incision is to be commenced not at the Centre of the tumour but above where it is thickest. —

After exposing the upper part of the Hernial Sac you carry on the dispection until you see the tendon of the Naval ms forms the Stricture — On opening the Hernial sac, pass your finger in, & passing y^r Scalpel on it, with frequent strokes you make the division — A ligature is then to be passed round the neck of the sac, not so tight as to stop the Circulation but merely to occasion adhesive inflammat^n — I never attempted the operation but once, & in that case the womans fears were so great that the moment I touched her with the knife she nearly fainted, & then by means of the Taxis, the intestine was happily returned. — D^r Dorsey performed the operation in the Alms House — Several tendinous threads had prevented the reduction of the intestine — They were all divided & the intestine returned. The Patient died a few days after

Stone.

Calculus concretions form in many different parts of the body, but most frequently in the organs of generation & urinary organs. The matter forming calculi is very abundant in the urine of some persons with particular constitutions, but the most healthy urine contains a sufficiency to form a Stone. all that is necessary to the formation is a nucleus - This may be any foreign substance accidentally introduced into the System, as bullets, pins, pieces of bougie, or a clot of blood. Upon sawing thro' a stone after extraction, its lamellæ are found to vary in density colour & consistence Stones are formed, or get into the Pelvis of the Kidnies, ureters, bladder, Prostrate Gland & Urethra, in all of which situations, great pain is produced. The stone generally begins to be formed in the Kidnies & passes thro' the Ureter to the Bladder — When it begins in the Kidnies, the pain is in that organ, & as the stone descends along the

course of the ureters there are pains in the back & loins, great irritation with rigors, retchings to vomit flatulency & colicky complaints. During the time the stone is in the ureters, the pain is lower & more acute - that part of the ureter above the stone is dilated - these pains are to be relieved by the warm bath - Mr Bloomfield very well describes the symptoms - the pain in the back is suddenly relieved when the stone passes into the bladder, but shortly after if not discharged another set of symptoms is produced. During the passage of the stone thro' the ureter, the best remedies are copious V.S. afterwards demulcents opiates & warm bath - these remedies very speedily remove the excruciating pain. After the stone has got into the Bladder, the Patient with the hope of discharging it thro' the urethra, shd drink plentifully of diluting drinks, & discharge his urine on his feet, standing with the body a little bent forwards - make frequent attempts & in various positions - In this way the patient

may have the good fortune to discharge the stone along with the urine, & thus prevent the necessity of performing a severe & dangerous operation

Symptoms of Stone in the Bladder.

Pain, with an itching, burning sensation in the part, urine when flowing in a full stream suddenly stops, owing probably to the stone suddenly falling into the neck of the bladder, & stopping the passage of urine thro' the urethra. The urine is pale & turbid, of a bad smell, depositing after standg a white mucous sediment, sometimes mixed with pus. The urine is sometimes mixed with blood this generally occurs after violent exercise. An uneasy sensation, & a sensation of itching thro' the whole course of the urethra frm its commencemt to its termination of the glans Penis. Later in the disease, Feverishness, flatulency, & indigestion occur, the fever runs high, the patient becomes extremely weak, & at length the lamp of life is extinguished by the constant uneasiness pain fever &c. None of these symptoms unequivocally prove

the existence of a Stone in the Bladder as they may arise frm other causes — As inflammat^n of the neck of the Bladder: or an ulcer in the neck of it, or in its neighbourhood, Hemorrhoidal tumours; & in one case that came under my care, nearly all the above symptoms existed frm a tumour in the rectum. Discharging pieces of calculi along with the urine is one of the most unequivocal symptoms of stone in the Bladder, but this is not a certain one, all the fragments of stone may have come out leaving none in the Bladder. —

Stones even of a considerable size may exist for a long time in the bladder, without producing the least inconvenience — Large stones have been extracted after death frm persons who never had any symptoms of stone in their lives —

As all the symptoms are more or less equivocal, to be certain of the presence of a Stone, you must sound the Patient as it is called — that is, introduce an Iron instrument curved to suit the course of the Urethra to the Bladder. Lay the Patient on his back, & introduce the instrument

× Sometimes considerable difficulty attends its introduction— there repeat the trials & in this case the surgeon shd begin its introduction with the concave surface towards the Perineum, & when &c

with its concave surface towards the Pubis. x,
& when it is got some distance into the urethra
it shd be suddenly turned with its concave
surface towards the Os Pubis. Let it revolve on a
point so as not to throw the membranous part
of the urethra into folds. In this way it may
be sometimes introduced after the first me-
thod has failed. If this does not succeed intro-
duce yr finger well oiled into the rectum. Af-
ter the sound is introduced, you will generally
find the stone in the most depending part of the
bladder, as the patient lies upon his back, if
not, move the instrument about till you find
it - If you dont find it on the first trial, sound
again & again. It may sometimes be raised so
as to be within reach of the sound by introdu-
cing the finger into the rectum - Raising the
Pelvis will detect it, by its falling from the fun-
dus of the bladder. It may be felt in most
instances the striking of the sound against it
may be distinctly heard. - You are not to
judge of the existence of stones by the sound pro-

X.

sing over a rough surface, as the folds of the
Bladder will sometimes communicate this sen-
sation. — When the stone is found, nothing
but the operation of Lithotomy is equal to its re-
moval — Every attempt hitherto made to dissolve
the Stone by means of injections thrown into the
bladder has been unsuccessful — probably the
substance of the Bladder itself wd be soonest
dissolved were the injections strong enough. —
Soap pills, Carbonate of soda, Carbonic acid gas,
lime water, Uva ursi, have all given tempo-
rary relief, easing pain for a short time, but
if the stone be not encysted case seldom con-
tinues long. During a fit of Stone attended
with fever &c — Bl. Warm baths, demulcents &
opiates are the proper remedies. When in its pas-
sage thro' the urethra, a small stone sticks fast
in the passage, it occasions suppression of urine
& great pain — It is to be extracted by a probe
flattened & a little bent at the end, by push-

then withdraw it & it will bring the stone
along with it — Mr Hunter has invented a
pair of Spring Forceps, you introduce them
Covered with a Canula till you arive at the
Stone you then &c —

ing it up the urethra till the curved end gets behind the Stone + you then withdraw the Canula a little, & the blade of the forceps open - After you get the stone between, push back the Canula till the blades of the forceps firmly grasp the stone, & then extract it - These forceps have never succeeded with me. -

If both these methods fail a large incision is to be made directly on the Stone thro' the side of the urethra, that the stone may be extracted with ease & prevent the flow of urine into the Cellular Texture. -

Operation - If the Patient be robust vegetable food & water &c - constitute his diet some days before. Before proceeding to the operation - it is proper again to introduce the sound well oiled - there is generally some obstruction at the prostrate gland, but it may generally be introduced by a little perseverence - move it about till you feel the Stone - Having thus ascertained its existence beyond all doubt, you may proceed

Have a table of convenient size & height & not too wide – a common dining table with the leaves hanging down answers very well Cover this with three blankets & a sheet – The sheet sh^d be folded, & one end project almost to the floor to go into the Surgeons lap – a pillow sh^d be placed under the patients head. –

Have also at hand, several basons of warm water & warm oil in cold weather – 2 fillets to tie the patients ankles & wrists together – a grooved director. the groove quite smooth, exactly like a sound in every respect but that of having a groove in its convex part – A scalpel. a straight sharp pointed Bistory tied at the handle to prevent its shutting & cutting the Surgeons hand – A gorget for dividing the urethra & neck of the bladder – this gorget is so constructed that it is removable fm the handle, & may very easily be sharpened. Ascertain that the beak of the gorget plays with great ease in the groove of the staff. for if too large. it will im-

pede or spoil the operation - If the blade of the gorget be too narrow, & the incision is so small as not to allow of the extraction of the stone it may be dilated to any size by means of a bistory with the end slightly blunted - one finger is to be passed in the wound at the bladder & the bistory passed on the finger bringing it out at the prostrate gland. It is of consequence that the portion of the blade of the Gorget near its beak wh commences & continues the incision thro' the upper part of the urethra & neck of the bladder shd have a fine sharp edge, for if blunt & dull, it tears instead of cutting & throws the urethra into folds, by wh danger is incurred of dislodging the beak of the gorget fm the groove of the director, in wh case the rectum wd most probably be wounded, & this accident in most cases wd prove fatal by opening a communication between the rectum & the bladder. The other instruments necessary are Forceps of different sizes - a long scoop wh may

occasionally be used as a third blade to the forceps, at other times to scoop out fragments of stone when it is broken in pieces - One pair of forceps shd be very small, & one pair curved - Plenty of needles & ligatures, a Tenaculum, Sponge, Towels, A syringe & Syringe to wash out fragments of stone wch might arise frm its breaking - Lint - Wine shd also be at hand in case the patient shd faint If the stone be very large, it has been proposed to break it in pieces by means of a Screw Forceps, by wch any pressure could be applied - This I never had occasion to use - The day before the operation it is useful to wash out the bowels by a mild purge as Castor Oil - About 3 hours before, wash them out by a clyster, & an hour previous to the operation it is usual to exhibit a dose of Laud:

Every thing being ready, lay the Patient on the table & introduce the director or staff - The patient is made to take hold of his feet with his hands & in this manner he is to be tied - Never fail to do this. Two assistants then hold the patient by placing

cing his knees in their Axilla, & taking firm
hold of his feet with their hands — Shave the
Perineum the day before — The Surgeon taking
hold of the staff passes it to the right groin, thus
causing it to project in the Perineum — An in-
cision 4 inches long must be made by one stroke
of the Scalpel, thro the skin & Cellular membrane
commencing just below the scrotum, & ending
at a point half way between the Tuberosity
of the Ischium & Anus. so as to expose the point
of the prostrate Gland & Urethra — The anus is to
be pulled to the right side by the left hand of
the operator & the incision made on the left side
of the Perineum — The Rectum is to be pulled
down for fear of wounding it — After the Urethra
is laid bare — an opening is to be made in
the membranous part of it just before the
prostrate gland with a sharp Bistory with
the back to the anterior part of the gland — After
piercing the Urethra & getting the point into

* So that the prostrate gland may be divided on one side by the edge of the instrument

the groove of the staff & cut upwards till as much of the groove of the Director is laid bare as necessary – In this way the groove is laid bare in 2 cuts, & in half a minute Wⁿ sometimes requires half an hour with the Scalpel As soon as the groove is laid bare introduce the beak of the gorget into it (ascertain that no part of the perineum or other substance is between the gorget & staff) & by pushing it upwards, divide the upper part of the urethra & side of the neck of the bladder × While making the division take care to depress the handle of the gorget to prevent its beak from slipping out of the groove – The flow of urine will inform you when you have cut into the bladder – The gorget is now to be withdrawn speedily & carefully, in such a way as to prevent its cutting as it comes out – Let the staff remain till you have ascertained with yᵉ finger the size of the incision in the bladder, & also

after

* The Scoop made to fit accurately on on the side of the other Forceps it to be introduced to act as a third blade — These are to be managed with both hands —

the size of the Stone - Because you may readily enlarge the opening, if it sh^d be found not large enough, by passing the gorget into the groove of the staff a second time without incurring the difficulty of a second introduction of the Staff - The grooved Director then is the last instrument to be withdrawn - at the same time the Forceps are to be introduced In introducing the forceps, elevate the handle so that the point of the forceps may touch on the depending point of the bladder, where the Stone will generally be found as the Patient lies on his back - After the forceps has grasped the Stone feel with the finger if it be in a situation favourable for extraction. if not it must be placed right - & then extracted + Having extracted the Stone feel for another & extract as many as are found - If the Stone is rough, it is probable no more are there. If in extracting the Stone be broken into fragments, every piece must be extracted by repeated introduction of small forceps - Very

Dr Physick has improved on this method of taking up the pudic, or any other artery wch cannot be seen — A pair of very nice forceps, gradually curved at the point so as to resemble a continuation of the common curved needle — The eye of the needle, armed with thread is received into the tip end of these Forceps, the extremity of the handles are to be tied firmly so as to prest the needle sufficiently firm at the point — The pulsating artery is then to be felt with the forefinger along wch the needle is to pass as a director — It is then passed round the vessel including the Cellular membrane &c — When it is pushed thro' far enough, cut the thread at the handle, the needle will remain, & the Artery is to be drawn tight in the common way. —

* This is liable to be cut, in wch case you are to pass your finger in the wound at the flanneu of the ischium, & feel the pulsation &c

small fragments may be scooped out, & still smaller ones washed out by a stream of warm water injected — Some arteries must be cut, as the Artery in the Perineum or Bulb of the Urethra they are to be taken up — But the Interna Pudic Artery at the Ramus of the Ischium* & feel the pulsation, when passing the Tenaculum under the Artery & flesh, you put a ligature over the point of the Tenaculum including the flesh with it — If the patient be so exhausted that there is no pulsation, then compression is to be made with the finger to stop the bleeding & Cordials given to restore the Circulation — If that fail the French Surgeons advise the introduction of a Canula into the wound, carefully covered with soft lint. A flexible bougie might be passed far enough up the wound to make compression on the Artery, but it is inconvenient, as the point of the instrument might go to one side & thro' the Cellular texture producing gangrene & mortification — It is better to pass a Catheter into the bladder thro the wound, & plug up one side to make compression — It is cer-

× The French have used an instrument called Bertoux Catheter
It consists of a thin narrow blade, concealed in a grooved
director — When introduced into the bladder, by press=
ing on a Spring it may be made to cut any depth
by merely turning the handle — But if the blad=
der be not distended, the sides are frequently cut &
very much injured

tainly best to tie a ligature, Cbut this is extremely difficult to effect — —

After the operation the Bed of the Patient sh^d be Covered with a blanket folded 4 times, over that a Sheepskin — Introduce a little way up the wound a small piece of lint — Put the thighs close together & put a sheet rolled up on one side under the Patient, that as fast as the portion he is lying on is wet by the urine, a dry part may be pulled under him If much pain occurs give Opium — If fever takes place treat it as for any other cause. — x

Operation for Stone in Women —

This is performed by simply introducing a director into the Urethra. the Gorget is then to be introduced into the Urethra, by sliding the beak along the groove — The stone is then to be extracted as in males

In introducing the Gorget in operating on either the male or female, we sh^d not push it in while the patient is Straining, for if we do there will be great danger of wound^g — the Sun-

dus & intestine, or some of the contents of the abdomen be protruded, or what is worse, the urine escape into the Cavity of the Abdomen & thus occasion peritoneal inflammation

Hydrocele.—

By this term we mean a preternatural collection of water in the Scrotum

There are 3 Varieties

1st When the water is contained in the Cellular membrane—

2d When it is contained in the Tunica Vaginalis

3d When the fluid exists in a Cyst or Cysts of the Spermatic Cord.—

1st When water is contained in the common Cellular membrane, & is only a Symptom of general dropsy, the tumour is smooth & equal, exists on both sides of the Raphe, involving both Testes &c are found in the Centre — The Spermatic chord may also be easily felt

2d Where the fluid collects in that portion of the Peritoneum &c descends into the Scrotum, at

or before birth along with the testes, & called Tunica Vaginalis Testes. This is almost always a local affection, & has been supposed to depend on weakness or Torpor of the Intestines, wh being unable to take up the exhaled moisture natural to the part. the moisture Collects & forms a tumour. This tumour commences at the bottom of the Scrotum near one of the Testes, & generally increases very gradually in size. Sometimes (on) a rupture of the Lymphatic vessels, it increases so rapidly as to fill the Tunica Vaginalis in a few hours. While the tumour continues small, the testicle can be felt at the inferior posterior part - this however is not the case when it becomes very large - In this last case it is generally diaphanous & cannot be compressed - It is of great importance to distinguish this affection (from) Hernia & Swelled Testicle

In Hernia the tumour goes into the abdomen when lying down, & returns again when in an erect posture - It begins above & proceeds downwards - Nothing similar happens in Hydrocele, & besides in Hydrocele the Spermatic chord may be distinctly felt

Schirrus or Swelled Testicle may be distinguished from Hydrocele by its hardness, by the pain attending, by absence of fluctuation & by its weight. Sometimes Hydrocele is so complicated with these affections as to require the greatest skill to ascertain the precise nature of the case

The 3d Variety of Hydrocele is when the fluid is collected in a Cyst or Cysts along the Spermatic cord - The Testicle here is in its natural & healthy state below - As the swelling increases it goes up toward the abdominal ring, & sometimes to all appearance within it. — The distinction between this & Hernia is often attended with no little difficulty. it may however be distinguished by being generally diaphanous, & by its circumscribed figure - Like Hernia it sometimes recedes & goes into the Abdomen upon pressure - In this case I was once enabled to ascertain the distinction by observing that it was not removed by pressure on the sides as it wd have been if it was Hernia, but only by pressure made directly in front In general, Hydrocele is not attended with any other

inconvenience than what arises from its bulk and weight. In warm weather, excoriation sometimes occur. Where the Patient will not submit to an operation for a cure support shd be given by a suspensory bag.—

Anasarcous Hydrocele.—

This is a symptom of general dropsy, & its treatment belongs to the Physician— The Surgeon is however sometimes called to afford temporary relief— This shd be done by making punctures thro' the Skin with a lancet to discharge the fluid— Scarifications & Setons are apt to induce mortification.— Sometimes Hydrocele of the Cellular Membrane of the Scrotum is produced by a sudden Rupture of a Hydrocele of the Tunica Vaginalis Testes— In a case of this kind that came under my care, the patient both distinctly heard & felt the Vaginalis burst, instantly the tumour wh was before confined to the side was equally diffused thro' the whole of the Scrotum having a dark appearance from the extravasation of Blood— He was exceedingly alarmed, & immediately sent for 3 Physicians who in con-

sultation concluded that mortification was Com-
mencing, & were not less alarmed than the Patient.
Upon being called in I explained the nature of the
case, stating that the dark appearance was owing
to blood extravasated fm a ruptured Vessel, that
the whole of the fluid now forming Anasarcous
Hydrocele, wd after a time be absorbed, & that
when the Rupture in the Tunica Vaginalis had
healed again, the patient wd be liable to a re-
turn of his former swelling — Every thing hap-
pened agreeable to prediction

Hydrocele of the Tunica Vaginalis
Testes. In this, little or nothing can be done by
medicine. In recent cases, especially in children, a
Stream of Cold water poured fm a tea pot several
times a day has been of essential service. Tempo-
rary relief may be obtained by tapping & draw-
ing off the fluid. The puncture is to be made on
the anterior inferior part with a lancet, when the
testicle is on the Posterior superior part, as it com-
monly is — As soon as the Puncture is made — a Can-

ula is to be introduced for the fluid to flow out—
if this precaution be neglected, when some part
has escaped, the Tunica vaginalis Contracting, the
opening in it will not be opposite to the external
skin, consequently the fluid instead of flowing out
of the wound will insinuate itself into the Cellular
membrane & form the Anasarcous Hydrocele, wh
is always an unpleasant circumstance. After draw-
ing off the water, adhesive plaisters shd be used, &
they supported by a suspensory bandage

Before puncturing, always ascertain the situa-
tion of the Testicle, By not attending to this cir-
cumstance many Surgeons have [redacted] foiled in
this operation simple as it is — In one case 3 Sur-
geons punctured one after another the Anterior part
of the Tumour, the spot where in this case the
Testicle existed. Mr Hunter at length succeeded
by puncturing it at the posterior inferior part

Radical Cure of Hydrocele

For this purpose various means have been employed,
the object of all wh is to cause an obliteration of the

cavity of the Tunica Vaginalis by exciting such a degree of inflammation as will effect adhesions between it & the body of the Testicle - The methods wch have been employed with this view are four

1 Caustic applied in a line along the centre of the tumour frm the upper to the lower part. It burns thro' the skin & tunica vaginalis, & is then precisely the same thing as simple incision, having no advantage whatever over it - Mr Else made an improvemt by directing the Caustic to be applied on a spot in the Centre, not larger than a Shilling. There is no doubt but a cure may very often be effected by means of the Caustic - but the Patient is exposed to all the inconveniences of a tedious suppurating sore, & excessive subsequent inflammatn wch may terminate in Gangrene

2d Method is by introducing a Seton between the Tunica Vaginalis & Testicle. Mr Pott is a very Zealous advocate for this method & recommends the Silk to be passed thro' the Canula (See Potts works Vol: 3d) In this way a sufficient degree of inflammatn will generally be produced, & the Tunica

Tunica Vaginalis will adhere to the Testes. This however is sometimes not the case, at times the adhesive inflammat^n is excited on each side the Seton, I will produce partial adhesion in its tract only. In this case as the cavity of the Vaginalis is not obliterated, the operation is incomplete, & the patient liable to a return of his disease — The water of the Hydrocele being sometimes in the Cysts is an objection to the use of the Seton, as is also the impossibility of ascertaining the state of the Testicle & of determining upon the propriety of removing it if in a Schirrous state. —

3° Method — of late Mr Earle has revived the opinion of injecting a gently stimulating fluid into the Cavity of the Vaginalis after having evacuated the water — He used Port Wine & water in the proportion of 2/3 of the former to 1/3 of the latter. The operation is performed in the following manner — Grasp the upper part of the tumour & pierce the Anterior part with a small trochar or what is still better the point of a lancet, taking great care to avoid the testicle. As soon as

the puncture is made, introduce the Canula, & push it pretty deep so as to be within the Cavity of the Vaginalis - After all the water has flowed out, inject the wine & water thro' the Canula wch may be done with a pipe & bladder - but it is convenient to have a Stop Cock fixed to the pipe. Suffer the wine & water to remain a minute or two until considerable pain is induced, then let it flow out. Pain is generally soon excited in the back & sometimes faintness. When the Canula is not pushed far in the wine gets into the Cellular substance, & produces too much inflammatn & sometimes mortification. To manage the Canula with more ease, it is useful to have a handle soldered to its upper part - After all the wine is evacuated apply an adhesive plaister over the puncture, put the patient to bed, & support the scrotum by putting the thighs close together, & apply a towel rolled up immediately under it - About the 3d day the inflammatn comes on when a soft bread & milk poultice shd be ap-

plied twice a day. If the inflammat^n be very violent \bar{v}s^d \bar{b}e used - The inflammat^n recedes in 8 or 10 days & shortly after the vaginalis & testicle are found firmly adhering. This method has much to recommend it - It exposes to but little pain, is very simple, the confinement short, & is generally successful - Sometimes however it will fail, in this case a repetition will succeed - State all the circumstances to the patient previous to the operation - The

4^th Method is to make an incision thro' the skin & Tunica vaginalis. The older Surgeons advise that it s^d commence at the superior and descend to the inferior part of the scrotum, & afterwards to dress it with soft dressings, introducing lint to keep the sides of the Vaginalis from the body of the Testicle - Lint however is not the best dressing, shreds being left often prove the cause of the formation of troublesome small abscesses in the part. M^r Hunter's method is the best - He makes an incision thro' the

Skin & Vaginalis only, an inch & a half long, & instead of introducing lint between the Vaginalis & Testicle - She advises the introduction of flow, pieces of poultice, & balls of dough - After a few days suppuration commencing the pus mixes with the dough, & is squeezed out along with it by the contraction of the Scrotum - after a short time the cure is compleated - This I think the most complete method of performing the Radical cure of Hydrocele - you are able to perceive the Cysts, & discover the State of the testicle - After the introduction of the dough, the dressing sh^d be a piece of Tow spread with Cerate, & over this a Compress secured by the T bandage. -

Fistula in Ano. -

By this is meant a deep Cavernous Ulcer, situated in or near the Anus with one or more openings. It begins with a dull pain, sense of weight, great hardness of the part, & is often attended with general fever - From the tumour

pressing against the side of the Bladder, dysury
or total suppression of Urine occurs, Sm hardness
& distention of the Cellular membrane round the
Anus, Pain & Tenesmus, & in women bearing
down pains. The inflammatn generally termi-
nates in Suppuration, & if after opening & the
common treatmt for abscesses, it refuses to heal
it is called a Fistula. When there is a small open-
ing communicating with the abscess externally
& also thro' the rectum it is called a complete
fistula. When there is only an external open-
ing without any thro' the rectum it is ter-
med an Incomplete. When there is an
opening into the rectum only an Occult or
Blind Fistula. The state of a Fistula may be
known by an examination with the finger well
oiled in the rectum, & by the probe in the ex-
ternal opening thro' the Fistula - The Patient
lies with his belly upon the Table his legs
hanging over & seperated by assistants. -

The Varieties of Fistula are Considerable - Some-

v Surgeon

times the collection of matter is small & like a common boil yielding also to the same treatment - Sometimes the collection is larger, & may be healed as a common abscess. Sometimes the Rectum is denuded - at times the adipose membrane extends to the Glutaeus muscles - Sometimes to the Vertebrae within the Pelvis - but generally here there is a Caries of the Vertebrae and but little hope of a cure. Upon the least complaint of pain about the anus an examination shd be immediately made that if a fistula be forming it may be prevented - Care shd be taken not to confound it with Piles. If called in early enough: the first efforts of the System shd be directed to prevent the formation of Fistula blood is to be taken liberally fm the arm. & fm the affected part by means of leeches - After the removal of the leeches, poultices of bread & milk with Sacch: Sat: &c - Every part of the Antiphlogistic plan is to be pursued together with low diet purges &c

If Strangury attend, it may be relieved by the warm bath, & Anodyne Glysters. Shd they fail, introduce the Elastic Catheter to draw off the urine — Inflammations of the Buttock are apt to terminate in Gangrene, for the treatmt of wch see post

The Surgeon however is seldom called until Pus is already formed, & after one or more openings. If any fluctuation be perceptible, & there be no external opening one is to be made for the purpose of evacuating the contents of the abscess. The Surgeon shd then attempt to heal by the common remedies for abscess — Continue the Antiphlogistic plan until a cure is completed, but especially if inflammatn supervene. —

Circumstances wch retard or prevent the healing of the Fistula. —

1st The fistula being incomplete — the confinement of matter prevents healing by constantly irritating to inflammatn

2d The suppurating cavity is prevented frm healing by the frequent closure of the external orifice

Matter collects again, & bursts it open in a few days, by old or new openings

3d When the fistula is complete, air & feces pass thro'. & some part of the Feces lodging at every stool, constant irritation is kept up in the sore

When the Fistula is Occult feces pass in & lodge very certainly preventing the Healing of the Sore —

4th When a considerable Cavity exists with a large or small external Opening, the Sphincter ani Contracting pulls one side of the Cavity on the other & thus breaks the adhesions as often as they are formed — This often repeated produces

5th Callosity &c is another cause that prevents the Healing of Fistula

6th It is prevented by improper application of dressings, by dressings to the bottom as it is called, that is, cramming as much lint into the Fistula as can possibly be got in. —

7th By the extent of the Fistula & Carious Vertebræ

8th By the general bad Health of the Patient

The Operation is a very simple one & consists in making the Cavities of the Fistula & gut into one by cutting the intervening substances with a Bistory - Divide the Rectum & fistula as high up as the abscess extends - the opening will then be so large that the faces will have a ready passage without lodging - The Levator & Sphincter Ani being incapable of acting the end of the gut will be at rest & soon heal

Instead of the Blunt pointed Bistory of Mr Pott. Dr Physick recommends a more simple instrument - It consists of a Knife the Blade of wh is covered with linen previously dipped in melted beer wax, when thus sheathed the whole is to be greased with sweet oil & introduced, then an assistant may pull away the linen & the incision be completed - A button on the end of the bistory as advised by Mr Pott makes it difficult to pierce the part - it is therefore best to have the end a little crooked only

When the Fistula does not extend far up the rectum - A director may be pushed up in it &

After the Operation dressings with Pledgets of
lint spread with some mild Cerate shd be
used. —

drawn out at the anus, the part over it is then to be cut - ×

When the Fistula reaches so far up the Rectum that the finger passed into the rectum cannot reach it. & when it does not communicate with the intestine - Despault recommends a long Trochar to be introduced covered by a Canula - when this instrument reaches the top of the Fistula, the Trochar is to be pushed forward from the Canula & perforate the rectum upon a flat piece of soft wood previously introduced into the Rectum for this purpose - The Trochar is then withdrawn & an instrument something like a Spatula but with an oval hole at the top is then introduced with this hole opposite the Canula within & in contact with it thro' the opening made by the Trochar

A leaden wire is then introduced thro' the Canula & thro' the hole in the instrument placed in the rectum - This instrument is then to be twisted so as to get hold of the wire which is to be

drawn down out at the Anus, & connected with the other end of the wire in the Fistula &c by pressing on the intermediate parts will gradually produce ulcerations, & come out leaving the parts above sound — This practice the Dr highly approves — And when the fistula terminates in Perinea — he thinks it very proper

Schirrus & Cancer

By this is meant a hard circumscribed tumour — destitute of redness, & possessing but little sensibility — When it ulcerates cancer is formed — Cancer then is nothing more than Schirrus in a State of ulceration — There are varieties in the nature of this tumour, & it is extremely desirable to know when they will end in Cancer At times a schirrus tumour will form & reside in common adhesive inflammat[n]. In glandular parts it sometimes ends in effusions of extravasated Coagulable lymph concreting in the vessels forms a hard schirrus tumour with no dis-

position to Cancer. - Scrophulous tumours often affect the Mamma & other part. - If there be any uncertainty, evacuations, Blisters, & Mercury shd be used. - We sometimes find Schirrus occurring without any evident cause, at other times it is the consequence of blows or some external violence - Sometimes it remains Stationary for years, at others, its increase is rapid. I have seen Schirrus terminate in Cancer wh had remained inactive for 30 years. & again I have seen a cancer form in 6 weeks. When it is thus forming it becomes painful, increases in size. is of an equal Surface, contracts adhesions to the surround[g] parts, changes the colour of the surround[g] skin to a purple, is sensible to the touch, surrounds the veins rendering them varicose, & is attended with violent shooting pains - It now extends further, the Lymphatic glands in the neighbourhood of the Schirrus being contaminated, & the vessels leading to them indurated feeling like hardened balls

In some instances a fluctuation is perceptible in the Centre of the tumour. When it ulcerates, the flesh becomes fungous, a fetid acrid Sanies is discharged, & an open cancer is formed — Many ulcers are formed wh resemble Cancer in all these appearances, but dont prove to be a Schirrus tumour — These are often as painful in their progress & fatal in their consequences.

When true Schirrus is formed, exterpation is always proper no discutient applications ever affect any thing — After the exterpation of Schirrus or those supposed to be so it is highly satisfactory to a surgeon to ascertain whether they are actually of that nature. We find Schirrus tumours to vary in their appearances according to the period of disease & time of removal. When the centre of the tumour is dense & hard, particularly in the early stage of the disease, when there exists a kind of Nucleus like firm Cartilage of about ⅓ of an inch in diameter, & when in the centre ligamentous fibres pass to the cir=

cumference, when a tumour exhibits these appearances, you may be certain it never will have been discussed, & that it will have ended in Cancer. As the disease advances the space between these fibres becomes more & more distinct & evident & the appearance in general changed. having a bloody fluid in some of the Cysts one of different forms & sizes. It is scarcely possible however to tell what tumours will & what will not [illegible]. Mr Home with his usual [illegible] is that they differ so much in different patients as to render it almost impossible to ascertain (what tumours will & what will not end in Cancer) - what are scirrhous & what Cancerous. & that he himself removed scirrhulous for Cancerous. Dr Pierson tells us it is absolutely impossible to distinguish Cancerous tumours from other diseases. Mr Nunn says that out of 102 cases of Schirrus on which he operated

4 only were clear of the disease for 2 years. Mr Hill found that out of 58 all ulcerated except 4 & all recovered except 2 - 10 however had the disease afterwards. Mr Hunter, Home and Cline all protest against the operation after the parts have acquired the property of contaminating the surrounding parts - The best rule is to use leeches, Antiphlogistic remedies, Blisters, Mercury & Cicuta to discuss them, & if these fail, to recommend extirpation. I have been successful in extirpating cancerous tumours after the Lymphatics & surrounding parts were contaminated. I have the satisfaction of believing that several lives were saved by it. Many tumours &c have for years been indolent suddenly become cancerous, & if we find indolent tumours rapidly increasing, it is proper to remove them altho' the symptoms of cancer be absent. Tumours exist in the Ala of the nose - Os Scroti & Penis &c have been confounded with cancer, but differ mate-

really as they never Spread or Contaminate the surrounding parts, absorbent glands or skin at a distance. It is a progressive eating sore & can be easily cured by an Opposite mode of treatment. The Ancients & some of the moderns believe cancers to be contagious, but this idea is altogether visionary. It is said to emit a peculiar odour capable of producing infection, & for this we find Sulpius the greatest advocate, who tells us that in dressing a cancerous Sore, his tonsils were inflamed & sloughed It is more probable that the inflammat[n] of his Tonsils was nothing uncommon, & that what he took for Malignt sloughs was only a coagulable lymph. It is certain that had it been a cancerous affection of these parts he never could have survived. Turner who had the boldness to taste the matter from a Cancer, ever after had a disagreeing taste in his mouth - languished for a few months & died.

Cancers have been supposed to be Hereditary

any - Mr Howne opposes this opinion, but allows there are certain Constitutional peculiarities wh dispose to it, altho' said he if not excited by action no cancer will be established - Out of 50 persons who receive accidents in Glandular parts, not more than one or two have any cancer formed. All ages are liable to this disease altho it generally attacks those advanced in life. The cessation of the menses in women is obnoxious to this disease - It is said to attack ~~Single~~ Married more generally than ~~Married~~ Single women Between 45 & 50 is supposed to be the most favourable age of its occurrence. It appears earlier in those in whom the Catamenia is irregular or obstructed. In this Country it appears in unmarried women when Catamenia is irregular or obstructed from the age of 37 to 60 - Cancers may affect every part of the body, but it most frequently occurs in Glandular parts. The breasts of women are the

most frequent seats of it. altho' we find diseases attacking those parts entirely distinct from cancer

1st The whole substance of the breast is gradually enlarged - there is no pain, its tender & sore & its bulk & weight constitute its greatest inconvenience - There is considerable heat redness & symptomatic fever, & the skin is occasionally not discoloured - This affects both single & married women - It is to be cured by Antiphlogistic remedies, Cupping & general & local Vs -

2d We find a Chronic inflammat.n of the breast occuring, attended with a considerable deep seated pain, the tumour hard, & deep in the substance of the mamma, heat, throbbing, shooting pains, a natural skin, & it suppurates & inflames - This affects young women without any evident exciting cause. Antiphlogistic remedies shd be used to prevent suppuration, & relieve the disease

3d Scrophulous tumours occur on the breasts, &

Spurious Schirri. These come on so gradually & are so strongly marked by the Symptoms of true Schirrus tumours, that it is extremely difficult to make any distinction. Where only the Skin is affected there is no danger — Where there is a number of tumours you may be almost certain that they are Scrophulous, for a Plurality of Schirrus tumours is by no means usual, therefore never extirpate where there are 6 or 8 tumours, but it is advisable where only one exists. —

If Hydatids constitute tumours, they are always to be extirpated — When you have concluded on the operation, it shd be performed as early as possible — for all writers agree that after the formation of Cancer, there is great danger of the surrounding parts being contaminated. If the breast be the seat of the disease, the axillary glands are liable to be affected, a most unpleasant circumstance. Mr Cline says, if these glands be affected, the operation shd never be performed, but I have extirpated mammæ after the glands in the Axilla were en-

larged & diseased, putting ligatures on them, I have had the satisfaction of saving 3 or 4 lives. tho' in some the disease has returned — There are 2 methods of removing Cancerous tumours viz?

1st The Knife

2d The Caustic

The first is decidedly the best, as you are able to remove all the diseased parts, & discriminate them from the healthy parts. The Caustic precludes the possibility of ascertaining these essential points. But if the tenor of our Patent compels us to resort to it, equal parts of white Arsenic & Sulphur are to be employed, but I see no reason why the common caustic will not answer.

When the knife is to be used the following circumstances lead us to expect a favourable issue

1st When the diseased parts are so situated as not to endanger wound of any large bloodvessel —

2d When it has been the result of an accident

3d The general good health of the Patient

4th When its progress has been slow, & there is no Contamination of the surrounding parts. — The

patient is to be seated opposite a window, I with a strait incision the tumour is to be dissected out removing the diseased skin. An incision is then to be made in the direction of the fibres of the pectoral muscle, & if the glands of the Axilla be diseased high enough, to extirpate them - Dissect the diseased mamma out first - then by cutting up, detach the hardened Lymphatics - When the finger is passed over the Axillary glands, cut them off taking care to tie the cellular membrane with a strong ligature to prevent hemorrhage. The vessels are liable to retract & bleed, so tie the whole with a ligature, & afterwards look for the divided vessels & secure them by ligatures. The best local applications are the bruised seeds of Hemlock, a Carrot poultice, scraped Chalk, & an aqueous solution of Opium. Tar water has been given internally. also Laud: Night shade, & Arsenic

Cancerous tumours are sometimes seated in the Neck, & when deep, the operation is hazardous — Scrophulous tumours have been mistaken & re-

tirpated for Cancerous in these parts — Indolent tumours therefore shd not be extirpated unless there be a cancer near it. They are at times situated under the lower jaw — Scrophulous tumours are sometimes situated in the Parotid & Maxillary Glands & they are often the seat of true cancers, in wch situation they are called Noli me tangere Authors erroneously call this a distinct disease — Caustic & actual Cautery have cured it. If it can be completely extirpated, the Knife is certainly the best remedy — There is no difference between this & other Cancers — I have seen it shoot out a Fungus, discharging a horrid fetor & producing excruciating pain

The Tongue is sometimes the seat of Cancer. M^r Home mentions 2 cases, both of wch were in persons of 50 or 60 yrs of age

The Lip is also the seat of Cancer, in some instances beginning like a small wart in others occupying the whole substance of the lip, & becoming schirrus. I have cut out the whole lip & thus effected a cure, tho' it disfigured my patient.

The Eyes are in some instances the seat of this formidable disease, & they have been cut out, for wh purpose a curved knife is used this is a disagreeable operation. ——— Cancers at the Rectum have attracted much notice, as not one has ever been cured. Opiates Vs & Mercury are the Palliatives. Mr Home advises Solid Opium in the form of Pills to be introduced into the Anus.

The Tunica Vaginalis Testes is in some instances the seat of Cancer & Mr Hunter extirpated the whole of one testicle wh was in a Schirrus State. —

The Bladder is also affected with Cancer Gooch extirpated one wh was in contact with two large stones — It was hard & thick, resembling the gizzard of a fowl. —

The Penis is sometimes the seat of Cancer — It commences like a small wart or speck on the Praenum, & sometimes remains on the prepuce or glands, quiescent for years, but if irritated by any cause, it becomes large, ulcerated, & discharges a fetid Sanies — It continues thro' the Urethra making a fistulous opening. thro wh the urine flows

The Glands in the Groin & Os Pubis are also affected extending in that direction — It may easily be distinguished from Venereal warts, as they are the result of Gonorrhoa or Chancre. Mr Hay says he has seen 7 cases & 6 of the 7 were affected with Phymosis

The Uterus is often the seat of Cancer — Stimulating injections, or corroding fluids are never to be injected. —

Extirpation of Schirrus tumours on the Breast. —

Before proceeding to the Operation it is necessary to make an accurate examination of the parts, so as to ascertain the the extent of the disease. Sometimes you find the tumour extending no further than the Breast & the skin perfectly sound; at times the tumour has no adherions below, at others it is purple hard & ulcerated — Sometimes it is movable & at others attached to the Pectoral muscle. Sometimes there is a tumour in the Axilla, so that great attention is necessary to ascertain whether the Lymphatic glands are hardened or enlarged. After feeling these glands, a piece of twine or pack thread is to be passed between the tumour of the

Breast & hardened glands. It is necessary to examine all around the Breast, & see if any other part be contaminated - Examine also the neck above the Clavicle & see if any gland be hardened there. — These things are absolutely necessary as by them you are to ascertain the propriety of operating, for when the parts have acquired the property of contamination, & the glands in the Axilla are hardened, there is little prospect of success, altho' I have in a few instances succeeded. — When you have determined on the operation for extirpation of the Breast, a free incision is to be made in the integuments covering the tumour so as to expose it —

The anterior surface of the Tumour is to be seperated from the integuments, so as to circumscribe the tumour on the outside & dissect it off from the fibre of the Pectoral muscle. It is of great consequence to attend to the vessels as you divide at the moment of cutting them. If the Artery be very small, the finger of an assistant may answer, but if large, the Tenaculum & ligatures must be used. If this be not done, the artery will contract — A Coagulum or plug will be formed, the Hemorrhage will cease & not re-

turn for some hours, when a second bleeding will occur far more perplexing than even the operation itself. For these reasons when it is proper as soon as the Artery is divided to stop in the operation, I immediately secure it by a Tenaculum & thread. After the tumour has been removed, the Hemorrhage stopped & the Coagulated blood washed out, the parts are to be brot into contact by adhesive plaister spread on linnen or leather. When the tumour extends into the Lymphatic Glands of the Axilla, they are also to be extirpated. Attention is here to be paid to the great vessels; in one case I brought all the vessels into view. If the skin covering the tumour be sound, one simple incision will do. But if it be purpled or discoloured, two incisions are to be made, one below & one above, so as to meet each other. You are to cut in the direction of the fibres of the Pectoral muscle, as the parts will be more easily brot together, & the gland then more readily exposed. If however a large portion of skin be altered in colour & texture, the whole is to be removed never giving

yourself a thót about the parts being brót into Contact. One great rule is to carry the incision always into parts that are perfectly sound for without this precaution the Patient will most certainly have a return of their disease. The Patient is to be seated in a Chair, in a good light, & the hair in the Axilla shaved. An incision is then to be made directly over the tumour in the Axilla coming down in the direction of the Pectoral Muscle, till you arrive at the tumour in the breast. Recollect that the lower incision is first to be made, for if the upper one is first made, the flow of blood will be a great impediment to the operation. Another incision is then to be commenced, just below the armpit, & continued down so as to meet the first incision. The tumour is then to be dissected off from the Pectoral Muscle, but if it adheres to it that shd also be removed without hesitation. It is proper if the tumour lie of any extent in the Axilla, to seperate it first from the pectoral muscle, leaving the upper part attached to the Axillary tumour

as the weight of the tumour will draw the glands down, & render it easier for the Surgeon to dissect around them. The surface of the tumour in the Axilla is then to be exposed by dissecting the integuments & turning them to one side, & the hardened Lymphatics are dissected off by continuing the incision up to the Axilla, taking care to dissect the tumour from the Pectoral Muscle. When you have got as high as the Axilla, then by pulling you may draw the tumour down from the Axilla. A young Surgeon will be apt, after dissecting above the tumour in the Axilla to cut off the upper attachment. But this is extremely hazardous, for to the top of the tumour the Arteries must then be kept upon the Stretch, & when they were divided they will fly up by their elasticity, & never afterwards be got at. Your finger is to be passed above the top of the tumour, the tumour drawn down, & a ligature passed firmly round the parts above, when you may cut off the parts — the ligatures will seperate in 12 or 18 days. When the hemorrhage has been thus

stopped. the sides are to be brôt together & retained by adhesive plaister spread on linen

Another mode has been proposed wh is practised only for a dread of the knife — it is the Caustic — But the knife is far preferable, as you can cut sound parts, & are able to tell accurately what parts you are dispecting — Besides, one dressing with the Caustic is much more painful than the whole operation with a knife, as I have repeatedly been informed by patients who have experienced both — If however it be used, equal parts of Arsenic & Sulphur is strewed on the Cancerous tumour — Corrosive Sublimate & the Actual Cautery will also answer — The actual Cautery is advisable in Fungous tumours of the Cancer, where the knife cannot be used, & when Cancers affect the bones. The eschar wh it produces over the Fungous acts as a firm bandage over it

Extirpation of Scirrus Testicle.

It is here also necessary to examine the Skin & Scrotum so as to ascertain what parts are sound and

what unwound, examine next the Spermatic cord & see whether that be sound or not - if it be enlarged & hardened, the section is to be made above the hardened portion, as the disease will otherwise return. Where the hardness extends thro' the ring of the external oblique, the operation is not to be attempted. After the Pubis is shaved, the incision is to be commenced an inch above the hardened part of the Spermatic chord, thro' the skin & cellular membrane & continued over the tumour of the testicle on the Scrotum, & then freely into the substance of the Scrotum, so as to ascertain if the disease is really Schirrus Testicle - for Testicles have been extirpated for Hydrocele & Hernia. The skin is then to be dissected off the tumour in the Scrotum. The Spermatic chord is to be dissected up till you seperate it above the hardened part, & then it is easy to feel the Vas Deferens which may be seperated from the chord, & a ligature passed round the chord half an inch above the hardened part leaving out the Vas Deferens & tying a knot on the chord

The Testicle may then be cut off - Books tell us that a slip knot is to be tied, as there is less pain as they suppose about the Artery - But it is proper to draw the Chord tight at first, for the pain is only severe at the moment, & is just like a severe pinch, & there is no danger then of hemorrhage. After the Testicle is extracted, the Skin is to be brot together, & Stitches used to keep it in its situation. -

Aneurism

By this is meant a morbid dilatation of any part or parts of the Arterial System. - Aneurisms are divided into true & false. The True Aneurism is when there is no wound thro' the Coats of the Artery - In the False the Coats are wounded & the Blood is found in the Cellular membrane which forms the Aneurismal Sac - There is frequently a general tendency to Aneurism thro' the whole body

The Proximate Cause of the Formation of Aneurism is, the momentum of Blood being too great for the power or resistance of the Coats of the Artery

The remote Causes are said to be intemperance

in drinking, or a violent Strain or Contusion— I have known 2 false Aneurisms in the Same Contusion —

Partial division of the Artery — Hunters experiments prove that this does not produce Aneurism. It has been supposed that when the external Coat of an Artery is cut thro' the internal may be pushed thro' it & thus form a kind of Herneal Aneurism — I believe such aneurisms never occur — If the causes above enumerated ever are remote causes, I believe they are but seldom — Aneurism much more frequently arises fm a diseased State of the Coats of the Artery without any evident cause The internal surface of the Artery loses its fine polish, becomes rough, & spots or points of Ossification appear on it — This disease is less frequent in women than in men & in young than old people. In recent Aneurism, the tumour & pulsation is very evident, but in old Aneurism the Pulsation is not so very evident, as the blood strikes upon the Coagula formed by the blood. The Skin Covering the tumour is at first of its natural appearance, but in the progress of the disease it changes

colour cracks &c. In recent Aneurism the tu-
mour can be entirely removed by pressing the
blood out of it, & in the old, its size can be consid-
erably diminished - upon removing the pressure
it constantly fills again. -

When aneurism exists in any of the great ves-
sels within the Thorax, the symptoms are irre-
gular pulse, difficulty of breathing, Palpitation
of the heart -

It often happens happens that a tumour im-
mediately over an Artery pulsates, this may be
distinguished from Aneurism by its moving as a
whole or entire body. On lifting it up, if it does
not adhere to the Artery the pulsation will cease. -
In the beginning the Pulsation is very rapid as
the blood strikes directly against the coats of the
Artery - afterwards the dilatation proceeds more
slowly, but in the end it produces a tumour
so large, that by pressing upon the skin it will
die, & seperating the patient will expire from a sud-
den gush of blood from the Artery - Aneurismal
tumours cause by their pressure, bones or what-

ever else they prest upon to be absorbed - They often kill without bursting by pressing upon the Trachea & Bronchia -

Appearances after death Dilatation of one side of the Artery only for that side being less supported by the surrounding parts, or for its being more exposed to the jet of blood - Sometimes the Artery is equally dilated every way. The next thing observable is the thickness of the Coats of the Artery, this circumstance shews that some additional matter assists the coats in forming the aneurismal sac, probably the coats are entirely removed by absorption & the sac formed by the condensed Cellular membrane. The Artery further from the Heart than the Aneurism is found diminished in size - In the sac we find ossifications Coagula of blood &c

This disease prospers no powers of Cure within itself - When the heart or Aorta is the seat of the disease, all we can do is to attempt to prevent its rapid progress by means of Rest, low diet, & occasional V.S. When Aneurism is in any of

the extremities, some have used pressure with bandages to cure it, or to prevent its further increase. I have known it employed in a few instances, but without succes. — Aneurismal enlargement may exist in any part of the Arterial System — but they occur most frequently in the Ham forming Popliteal Aneurism. There is little inconvenience at first, the skin is of its natural Colour, the tumour small, & the pulsation very strong — In the progress of the disease, numbness & pain occurs fm the stretching of large nerves stretched over the tumour, & Oedematous swelling below fm compression of the Lymphatics. —

The operation employed by the older Surgeons for the cure of Aneurism, consisted in cutting down to the Artery & tying it both above & below the Aneurism Here as they put their ligatures on diseased or unsound parts of the Artery, they cut it thro' in a short time, & then a dangerous & sometimes fatal Hemorrhage ensued — Mr Hunter proposed the operation to be performed at the mid

dle of the thigh instead of amputation &c was the practice with some — He put a ligature on the artery just before it passes thro' the Triceps Muscle — this has been often done with succes — & is the method now in general use. —

Operation. The instruments necessary in the operation are a Tourniquet, a Scalpel, & a large blunt needle, armed with a double ligature. — The first thing to be done, after the patient is laid on the table, is to apply the Tourniquet loosely on the upper part of the thigh, that the Hemorrhage from any small vessels that may be cut may be easily commanded, or Hemorrhage from the Crural artery itself tho' that by any accident be cut — Our object with the Scalpel is to cut down upon the artery just above the place where it passes thro' the tendon of the Tendon of the Triceps Muscle — First lay bare the fibres of the Sartorius muscle by an incision 4 inches in length, Continue the incision dissecting round the under & inner side of the Sartorius as the Patient lies on his back otherwise the Surgeon will soon come to the

bone above this muscle, a circumstance has actually happened to some Surgeons of considerable standing — Seperate the Cellular membrane with the fingers, or with the ivory handle of the knife, to prevent dividing the small arteries — As soon as the Sartorius is thus seperated from the parts below, the strong pulsation of the Artery leads you directly to it — turning the Sartorious aside, divide then the tendinous fascia — it is best not to divide it immediately over the Artery, as by so doing the Artery may be cut Next pass the blunt needle under the Artery & then in order to seperate it from the adjoining parts push the needle first upwards, then downwards, then tie the ligatures & divide the vessel between. After the first ligature is passed round the Artery place your hand on the Aneurismal tumour & ascertain if it pulsates — & ascertain whether you have the proper Artery by alternately drawing the ligature tight, & then relaxing it — as mistakes has been made — Sometimes only one lig-

It is always proper to open the Aneurismal Sac & scoop out all the Coagulated blood with a Teaspoon otherwise the tumified parts pressing upon the small Anastamosing Arteries will effectually prevent the inferior parts from being supplied with blood — Opening the tumour may be done either before or after the operation — If before, the Tourniquet being applied the 2 ligatures must be passed round the arteries ready for tying. & then Scoop away all the blood until the fresh arterial blood gushes out

ature is just on the vessel & it is not divided, but in this case when inflammation comes on, the tension of the Artery is very great. Mr Abernethy advises 2 to be tied a small distance asunder & the artery cut between them, but when tied in this manner the ligature sometimes slips off the end of the artery — to prevent this, one ligature is to be tied on the artery above & the other below, a needle is then to be put in the upper ligature, & passed thro' the Coats just below the parts it is tied around, the same is to be done with the lower one, & the artery divided between — As soon as done bring the sides of the wound in Contact & retain them by adhesive plaister — To keep the sides at the bottom of the wound in Contact, apply a compress on each side. It is of much consequence that the wound heal by the first intention, otherwise profuse suppuration Hectic & will take place. I have seen pus travel up & down the internal surface of the Sartorius

thro' its whole extent, when by improper management the wound is permitted to suppurate. In 8 or 12 days the ligatures will seperate, & may be removed — The Aneurismal tumour is sometimes absorbed & carried away, but more frequently it suppurates breaks & discharges

In true Aneurism I have never witnessed mortification from the operation, blood enough being carried by the small arteries to the foot to nourish it — But in false Aneurism I have seen gangrene in 2 instances after the Operation probably from the small vessels being unable to transmit a sufficiency of blood because contused In a case in the Hospital I operated with Complete success in both limbs of a patient at different times. —

Besides the true & false Aneurism, there is the <u>Varicose Aneurism</u> It generally occurs in the arm from V.S. — In this species of Aneurism the blood passes directly from the Artery into the veins — There are 3 kinds of Varicose

Aneurisms Spu Nat.

1st When the puncture thro the vein is not opposite to that in the Artery, & the Blood passes into the Cellular Membrane — called Ecchymosis

2d The true Varicose Aneurism — Here Blood passes directly out of the Artery into the vein In this Aneurism the veins opposite & above the puncture are a little tumefied — upon applying the Fingers over them, a very peculiar thrilling Sensation is perceived — By pressure on the puncture, the veins will empty, but instantly fill again when the pressure is removed, this variety is not in any degree dangerous & requires no operation, the veins will never burst, but these circumstances the Surgeon ought be acquainted with. —

The 3d Variety is a complication of true Aneurismal Sac with an enlargement of the veins. A communication from the Artery to the Sac & from that to the veins — In this Species it is

necessary to tie the Artery above & below the Aneurism, for if left to itself it wd prove fatal
See a case related by myself in Dr Coxe's Medical Museum. —

Tapping. —

When water is collected within the Peritoneum or that membrane wh lines the abdominal Cavity in such quantity as by its bulk or weight to prove very inconvenient, or by pressing upon the Diaphragm impedes respiration Under these Circumstances the Surgeon is called upon to give relief by the operation called Tapping This consists in puncturing the abdomen, & drawing off the water — It has commonly been performed by making an opening halfway on a line between the Anterior Superior Spinous process of the Ilium & the Naval — Some have introduced the practice of performing the operation between the Umbilicus & Pubis — about 1-2/3 of an

inch from the Os Pubis —

In the first mode of operating - Mr Cline of London cut the Epigastric Artery - & death was the Consequence since wch he has preferred the latter method - As an objection to this latter method it has been urged that the tendons of the abdominal Muscles wch is punctured in this Operation does not heal readily - But I know from experience that they heal as readily as any other part —

It is astonishing that Mr Cline in the case above mentioned did not cut down to the Artery & secure it by a ligature -

It is of great consequence to know if the Swelling be really occasioned by water for this purpose the Surgeon gently tapping with his hand each side of the belly, if caused by water will perceive a fluctuation of that fluid This precaution in women is absolutely necessary a pregnant woman being once tapped for a

supposed dropsical affection — A celebrated Actress of London who had been several times tapped while in Town — She afterwards removed to the Country, where her abdomen again swelled — A Surgeon was called in & She insisted on being tapped — He seeing the marks of Trocars did not hesitate to operate — But on withdrawing his Stillett was astonished to find Blood discharged instead of water — The unhappy woman expiring in a few days, her supposed dropsical affection was found to originate in advanced Pregnancy, & the Stillett had entered the Lip of the Child. —

The Operation is very simple — The instrument generally used is a Trochar — It was formerly round with a triangular point, but this was found to be inferior to a flattened Trochar with a lanced point, as an incised wound will heal much sooner than a punctured — the former also requires considerable

† The Patient in this operation sh^d evacuate the contents of the bladder otherwise the Founder might be injured — a large bandage of flannel or Muslin for making Compression on the belly after the water is evacuated, is to be roped round him

force to introduce it, & is attended with con-
siderable pain — & that with the lancet point
is with difficulty sharpened — I therefore pre-
fer a lancet to make an opening after wh a
common female Catheter is to be introduced
This is better than the Canula for being blunt
& smooth at the end, it does not like the Can-
ula injure the contained parts wh press against
it allows nearly all the water is evacuated — The
operation with the lancet is less painful & far
superior on many accounts

Some choose to have the patient seated in a
chair — but I prefer laying them on their side
on a bed near the edge +

The incision is to be made in the Linea Alba
about 2/3 of an inch fm the Os Pubis & the Ca-
theter introduced — The assistant making pressure
on the abdomen with his hands the water will
flow easily — If any part pressing against the Ca-
theter obstructs the flow of water it is to be

pushed away with a probe passed thro' the Ca-
theter. It is proper to have wine at hand in
case the patient shd faint &c. After the wa-
ter is evacuated a piece of linen or leather spr-
ead with adhesive plaister is to be applied over it
over wch a Compress & that secured by a roller
passed 2 or 3 times round to compress the ban-
dage firmly. & has this advantage attending it
viz: the constant pressure prevents Syncope wch wd
occur fm the sudden removal of the Stimulus of dis-
tention

Amputation

Amputations

The loss of a limb is often necessary for the preservation of life — It is sometimes dangerous — Mr Allison one of the greatest improvers of Amputations tells us that out of 46, 10 died, 18 had a violent Hemorrhage & all violent fever — Some recovered with incurable ulcers. — The Ancients were accustomed to make an incision down to the bone, saw thro' the bone & apply a red hot iron to the Stump to prevent Hemorrhage. The introduction of ligatures & the doctrine of adhesive inflammat^n as delivered by M^r Hunter have greatly diminished the danger, the first rendering the Cautery unnecessary, the last causing a cure in a few days before inflammat^n comes on. —

Causes requiring Amputation — Compound fractures have been supposed to render it necessary, but they are rarely so bad as to call for it, & we are to recollect that the most unpromising cases often terminate favourably. Tetanus & Mortification are frequently produced by it particularly in Sum-

ner. If compound Fractures render it necessary, the parts must be so very lacerated & torn as to render it impossible for them to supply sufficient blood for the nourishment of the inferior extremities

Hemorrhages in Fractured bones, where the Arteries lie so deep as not to admit of being taken up are also supposed to be a cause. But if no way be be successful I shd take up the Femoral Artery as in Popliteal Aneurism - As we have said in compound Fractures where the Flesh is greatly disorganized, the Blood vessels much torn, & the cavities of the joints also largely torn - as in Gun Shot Wounds, amputation is Authorized

Mortification is another cause supposed to Authorize Amputation for the purpose of producing a good Stump - Mr Sharp, Pott & Bell all agree in forbidding amputation while Mortification is progressing, as it will appear in the Stump.

Diseases of the Joints, & white Swelling at times call for amputation to prevent Hectic -

In Caries of the Joints, there is no prospect of performing a cure — Mr Park has proposed to cut out the Joint — When there is only a caries of the bone without affecting the joint it is rarely necessary Ulcers, Cancers, Fungous Hematodes and large tumours all occasionally call for amputation — State the circumstances to the Patient & let him or his friends take the responsibility — —

Amputation of the Fingers. —

This is most frequently done at the joints. It is proper to feel where the joint is, & a circular incision is to be made with a knife thro the skin & adipose membrane above the Joint, then pull up the skin & cut in the joint on one side. It is done in one minute. The arteries seldom bleed, but if they sh^d draw them out with a Tenaculum, pass a thread around them, & then cover the head of the bone with the integuments securing them by a Strip of adhesive plaister

Amputation of the Thigh.

Before the operation have all things prepared

1st A Convenient Table such as is used in the operation of Lithotomy, covered with a mat-trap, a Blanket & a pillow

2d Four assistants, one on each side one to manage the Tourniquet, & another to Sponge the Stump & apply the Ligatures

Instruments —

1st A Tourniquet. But before this is applied, a Compress is to be put on the Artery. —

2d Two large Knives as one is frequently broken Great care sh^d be taken that the knives are as sharp as possible, to divide the integuments easy, & to prevent their being thrown into folds, & leaving a jagged wound

3d A piece of Linen or leather slit called a retractor

4th A Saw — It is necessary to examine the teeth, for instrument makers neglect to set them wide enough & when the furrow is so narrow as to choke the blade of the saw & prevent the Completion of

the operation - The teeth shd be wide enough to make a groove sufficient to clear the blade of the saw

5th Good Sponges, warm water, needles, ligatures & a Tenaculum

6th A pair of bone nippers, that if any splinters of bone shd be left on the Stump they may be nipped off - An hour before it is proper to give a dose of Laud:

Before you apply the Tourniquet, be certain that the 2 flaps or pieces are in contact, & take care not to have the Buckle too near the side of the Tourniquet as the String may be torn off. The Buckle then shd be some distance from the sides of the Tourniquet - After you have applied the compress & bandage on the Artery, screw the Tourniquet on the Compress, & turn the Screw until the Pulsation of the Anterior Tibial Artery ceases - All this is necessary to attend to - It is proper to have 2 tourniquets, as the Strap is sometimes broken, an accident which once happened to myself. One assistant is then to be on each side of the Patient, one holding the diseased the other the Sound Limb & one holding

his fingers on the Tourniquet. The man who holds the Tourniquet shd draw the skin up to render it tense & make the knife cut easier. The older surgeons used to tie a tape below the part where the incision was made & it is said to guide them in the direction of the knife. But this is not so, it was only to render the patient steady. It is however quite unnecessary, for the assistant drawing up the skin will answer every purpose. An incision is then to be made thro' the skin & adipose membrane to the muscles, so far round the limb as you conveniently can without putting yourself in an awkard position. Some say you shd divide with one sweep of the knife, the whole of the skin & fat, but it is only necessary to cut as much at first as you can without putting yourself in an awkard position. Having made the incision so far, it is easy to divide the rest, with a scalpel you dissect up a little way dividing the Integuments from the muscles. Some advise the knife for this purpose, but it is too large. Then after they

they have been turned back. y^r next incision is thro' the muscles down to the bone. In this incision y^r eye must precede the edge of the knife all round, or there w^d be a risk of cutting the integuments again. Any portion of the Muscle w^h may not have been completely cut, you may then divide, running y^r knife on the bare bone to the Periosteum. As soon as this is done, you apply the retractor on the whole of the lower part of the limb — 2 straps being fixed to the upper part, w^h by pulling, guards the soft parts fm the action of the saw. After this you introduce y^r saw making long strokes, for if you make short ones the saw will choke — Any Specula of Bones w^h are left, may now be taken off by the bone nippers — The retractor is now removed & the surface of the stump carefully cleaned with warm water —. The arteries are now to be looked for, pulled out with a Tenaculum & secured by ligatures. The Artery shd be tied by itself. Where the Artery is perfectly sound, it is sufficient just to take it up with

the Tenaculum & tie it. Cut in old people when it is crisp & ossified, draw it out & apply the ligature with a needle so as to include the adjacent flesh. As to those convulsive twitches arising from injuries of nerves it is altogether imaginary. for the effects are the same whether the artery be tied alone, or the flesh included with it. — After you have secured that, search for others, sponging the stump completely & carefully removing all little coagula, as we often find wounded Arteries under them. — Next loosen the Tourniquet & see if there be any spirt or jet of blood. — After carefully wiping away all little Coagula of blood, cover the face of the stump with the integuments. It frequently happens that after all the Arteries are tied a hemorrhage takes place from the veins, being of a dark colour. To tell whether it be venious or Arterial blood, remove the Tourniquet & even the compress & bandage. The integuments are next to be secured by Strips of adhesive plaister bringing the ligatures as much as possible out of one side

of the wound. I always put lint between the edges of the divided skin to prevent union by the first intention, for the internal parts will not unite in the same way, & pus serum or blood being deposited will inevitably cause an abscess — Adhesive plaister is to be applied over the lint, & drawn over the muscles & bone — Four strips of adhesive plaister shd be used, over them a compress of soft lint spread with mild cerate is to be applied over the Stump — Next apply tow, & these dressings to be secured by a roller — It is customary with some Surgeons to apply strips of linen over the stump, but this renders the dressings more complicated, & is quite unnecessary — The bandage is to be carried over the Hips, so as to pin it at the upper part of the thigh, or it will slip — The patient then is to be put to bed, a pillow put under the Stump, & the bed clothes prevented from pressure by a hoop. The Tourniquet is now to be loosened at the upper part of the limb, directing the assistant to screw it tight if any hemorrhage shd occur

In 4 or 5 days the dressings may be taken off & repeated

Amputation below the Knee

At times the injury is so low down as to render it discretionary where to operate — I always prefer the operation 4 or 5 inches below the knee joint & below the insertion of the Flexor muscles situated on the thigh. It has been a question of considerable interest whether the operation near the Patella, or that near the ankle is the most advantageous. — The advocates for the latter operation assert, that when the Patient is a man of fortune, an Artificial leg will enable him to enter the ball room & with more or less little disadvantage, having also an opportunity to omit the leg as may be most convenient. To this we answer that by bearing on the end of the stump, the Cicatrices &c are formed must be hurt — besides when the Artificial leg is omitted, the long projection behind will be very inconvenient by striking against surrounding objects

The hair is to be shaved

When called to operate them, especially on the indigent. the operation 4 or 5 inches below the Patella is incontestibly the best, thereby obviating any ulceration, & also the inconveniences attending the other mode _ This was strikingly exemplified in a Sailor who having the amputation performed near the Ankle, submitted, & by his own intreaties to the operation near the Patella alleging as his reason that the inconveniences were very great

The only additional instrument here is a sharp pointed knife shaped like a lancet sharp at both ends for dividing the soft parts between the bones. x The first incision is to be made thro' the integuments obliquely, so as to leave a considerable portion of the integuments behind, to meet those on the anterior part, leaving more behind than before _ Commence y^e incision 2 inches below the place you mean to cut, & obliquely _ the integuments to be dissected up with a Scalpel, & then turned up out of the

way— Then the Incision is to be made, Cut directly round the limb at right angles to the bone I carried to the bone. Then with the Catlin divide the parts between the bones. & next the Retractor is to be applied to keep the Flesh out of the way— This retractor has 3 Straps differing from the other in has 2— The middle Strap is to be passed down between the Tibia & Fibula— It is desirable that the Fibula shd be sawed first, for if it was left till last, it wd be so loose that it wd splinter— The Fibula is then to be sawed first— Writers direct the Surgeon to stand on the inside, but this is of no consequence, I I think the position is that wh is most convenient, for after sawing thro' the Fibula, it is easy to turn the saw round & saw thro' the Tibia— The end of the Stump is next to be cleansed frm blood, the arteries taken up & the integuments brot down & connected together. —

The dressings are the same as for the Thigh.

Hæmorrhoidal Tumours.

They are near the Anus, or at times at the verge of the Anus in the Rectum. They sometimes bleed profusely. & there are occasional returns of inflammat^n & swelling. At other times when situated at the verge of the Anus in the Rectum, by straining at stool the tumour is protruded, & the gut pushed down, forming Prolapsus ani. Persons thus afflicted are subject to Flatulency & Dyspepsia. By the tumour pressing on the membranous part of the Urethra, difficulty in voiding urine takes place, or if the tumour be large suppression is a frequent symptom. In one case w^h came under my care, there was numbness of the thigh w^h ceased as soon as the tumour was extirpated. When much inflammat^n exists, the patient is greatly relieved by a horizontal position. The Antiphlogistic plan sh^d in this case be strictly pursued 30 or 40 leeches applied to the part, the bowels kept open by Castor Oil or Sulphur, &

some mild unctuous substance applied to the Hemorrhoidal Tumour, as Tallow or mutton suet. A Poultice of bread & milk wet with lead water or Land. &c. also be applied. These are all palliatives. As the patient is subject to frequent attacks of this disease & it is attended with much pain & swelling, it becomes extremely desirable to remove it entirely. Two methods have been proposed to effect this —

1st By cutting it off.

2d By tying a ligature round its Basis, & cause it to seperate by the absorbents

When it is cut off, the vessels &c are divided produce profuse Hemorrhage, & for this reason it is best to take it off by ligature. When it is small it is very easy to apply a thread round it, or what answers better, common Cobbin, taking care not to wax it, as it wd make it slip. When the basis is broad, a needle armed with a double ligature may be passed at the base of the tumour about its middle, One thro' one

side of the tumour, the other on the other side, cutting off the Strings. I have known it to remain 12 days without a Seperation, & I have known it to come away in 4 days. At the moment of tying the ligature there is a sharp pain just like a pinch — When the tumour is at the verge of the Anus within the rectum, it is impossible to bring it into view or get a sight of it except just after Stool, for this reason Cathartic medicines are to be given, & seize the opportunity just after an evacuation, when it may be brot into view by pulling it out with a Forceps, & then pass a thread round it, or if that cho not answer a wire by means of a double Canula. —

Stictures

On Stictures. —

By the term Stricture is meant a diminution or total obstruction of the Cavity of the Urethra — They are of 2 kinds

1st Permanent

2d Spasmodic — They are generally met with at the bulb of the Urethra about 3 inches from the glans Penis itself

In the Permanent Stricture, the flow of urine is gradually obstructed, so that at last it comes away Guttatim, & that with straining & difficulty — Dull & heavy pain in the Hypogratic region & back, & frequent desire to evacuate the Bladder — The symptoms very much resemble those of a Stone in the bladder. — A Gleat often attends Stricture — that portion of the Urethra between the neck of the bladder & the Stricture is generally enlarged, the rest of the Urethra is diminished —

Intemperance in eating & drinking, Cold, violent exercise, immoderate venereal indulgence, & suddenly suppressed Gonorrhoea are among the

x dead

most frequent causes of Stictures. The urethra is not the only cause of Stricture, they sometimes occur in the Greater Auditorius Fisternus Oesophagus & Trachea. The spasmodic Stricture is induced suddenly & is owing (as the term imports) to a spasm of a portion of the urethra. Intemperance, & some of the causes above mentioned frequently induce this kind - All the exciting causes are not known. The spasm is often great, grasping the bougie so tight that a 2 lb weight might be suspended to it, without loosening it. In the urethra. The bougies are frequently indented at the place of the Stricture, grasping so as to be very sensible. The Permanent strictures may be always removed by the careful use of bougies - These shd be made of waxed linen, tightly rolled up, and polished by rubbing them on marble or Mahogany - The end shd taper gradually to a point that it may enter the Stricture easily - Before introducing them they shd be well Oiled, & then passed as far into the obstruction as can be conve-

riently done. At the first time of using them they may be retained about 5 minutes or until the Patient feels uneasy. Frequently great uneasiness with cold sweats & sickness are induced, but these symptoms wear off as soon as the bougie is removed - The next time they must be continued for a longer time, & so on, retaining them longer & longer at each successive time of their application. A larger one also may be used at each time. When the bougie cannot be passed thro' the Stricture, it may be gently pressed against it for some time every day. If the Stricture winds round the Canal, or is only on one side, the bougie must be bent so as to be adapted as nearly as possible to the flexure of the Urethra - When there is a fistulous opening into the Perineum, the Stricture may be removed by Caustic or a Lancet. If caustic be used, it must be cut into a small roll, & fixed by winding thread round it, to the end of a common bougie. Dr Physick fixes a small cap of waxed linen, secures

ed by 2 threads on the piece of caustic, to pre-
vent it from injuring the sides of the urethra in
its introduction. When the bougie is passed to the
Stricture the cap may be withdrawn by the
threads, & the caustic will then be in contact with
the obstruction - By the use of this Cap the Caus-
tic may be made sharp at the point so as to en-
ter some way into the Stricture, & by this, sooner
effect a cure. A bougie must be worn some time
to prevent the parts from Coalescing. The Stric-
ture may be removed with the Lancet with
entire safety, for if the incision is made in the pro-
per direction, it soon heals, as no urine can in-
sinuate itself into the wound - It is necessary
that the Lancet be concealed in a Canula, (either
a straight or a crooked one may be employed) it
must be well oiled before it is introduced into
the urethra - After it is pushed up to the Stric-
ture the Lancet may be pushed out of the Can-
ula & thro' the Stricture

In Spasmodic Strictures the bougie must

not be employed, as it is generally injurious.—
The follow^g remedies may be tried

1st Warm Bath

2° Injections of Tobacco decoction

3° Bleeding

4' Cathartics

5' All the exciting causes must be carefully avoided.—

Suppression of Urine.—

This is always accompanied with great pain in the Bladder & abdomen. The follow^g causes frequently produce a suppression

2 1st Abscesses in the neighbourhood of the Anus

1 2° Tumours

3° A Stone falling into the neck of the bladder

4th Calculi in the urethra. These may be extracted either by the Spring Forceps mentioned by Dr Physick, by a scooped probe, or by cutting down to the Stone with a Scalpel.

5' Spasmodic Contraction of the neck of the bladder

6th

6th Swelling of the Prostate Gland

7th Spasms occuring after the removal of a Stricture by the Lancet or Caustic. Force must never be used to pass the Bougie

The Remedies are

1st Bloodletting. This is often necessary, It maybe carried to a great extent, even ad deliquium Animi.

2° The Catheter may be employed. The French flexible ones are the best — they are made of an Elastic substance & may be retained in the Urethra 10 or 12 days without detriment to the patient When we are called in a hurry, & a catheter cannot be procured, a tolerable one may be made by covering the wire of a suspender with waxed linen, It is a good substitute. —

3° Clysters of Tobacco or any other material

4th Cathartics

5th Emetics They have been lately highly recommended

6th Tinctura Ferri, Muriat

7th Warm bath until the patient feels faintly

8th Opium either by mouth or by injections

9th Steam

9th Rubbing the parts with Volatile Liniment has been used, but with little success

10th Blisters

11th Dipping the Penis in a Cason of cold water

12 Infusion of Tobacco, or the smoke injected up the Rectum. The Pulse shd be carefully attended to, & if by be indicated it shd be freely used. Frequently the bougie can be paped when the Catheter cannot, in this case a Bougie point must be fastened on the Catheter & secured by 2 threads & then paped into the Bladder it may then be extracted by the strings wh shd always be long enough to hang out of the Urethra. If these means fail, the Lancet guarded as above directed must be employed — Sometimes the Urethra is entirely closed thro' its whole extent — it then becomes necessary to puncture the Bladder — The Bladder

may

may be punctured in 3 ways. —

1st When it is much distended by urine it may safely be punctured above the Os Pubis this must not be done unless the bladder is greatly distended, for we run a risque of piercing the Peritoneum, & letting the urine into the abdomen. —

2° From the Rectum — The finger well lubricated must be introduced up beyond the prostrate gland about an inch — then with the finger serving as a Director, the Raphe must be punctured with a crooked Trochar — taking care to avoid the vas Deferens & the adjacent parts — A female or flexible Catheter must be introduced & suffered to remain 24 hours or 36 — the urine does not flow constantly, only when the bladder is distended. —

3° By cutting down along the Raphe, as in Lithotomy. the finger must serve as a Director to the puncturing instrument. —

4" The French Surgeons sometimes operated

as in Lythotomy using a Director & Trochar
This is safer than the last -

In Puncturing the bladder fm the Perineum
a puncture must be made as in Lythotomy, &
the bladder punctured a little above & to the
left side of the Prostrate Gland - In women the
bladder may be punctured fm the Vagina -
The finger must here serve as a Director, & the
puncture made so as to avoid the Ureters.

The Canula may be left in the wound as
long as the cause of suppression exists

Structures often take place in the Oesophagus,
they may be relieved by a large bougie made
of the same materials as the common ones.

Questions.

Abscess of the Hip Joint.

How does this disease commence?
At what age?
After its occurrence is the general health of the patient injured?
Is the limb increased or diminished in bulk?
Is one leg longer than the other?
Why?
Where is the pain felt?
What diseases have been mistaken for it?
How will you be certain of no disease of the hip?
What is the appearance of the hip?
What are the occasional causes?
If neglected what consequences ensue?
Does the limb continue to be apparently elongated thro' all the stages of the disease?
Will how does it become suddenly shorter?
How has it been commonly treated?

Suppose an abscess forms? what is the most favourable termination?

Does Caries ever occur?

On Wounds

How wd you treat a wound transversely thro the eyelid, made for instance with a Knife?

How wd you dress it?

Suppose you found a Suture necessary how wd you apply it?

What danger wd result fm piercing the globe of the eye?

Suppose the Body pierced the Crystalline lens how wd you treat such a Patient?

Sometimes evacuating remedies don't succeed, what remedy wd you use then?

How wd you apply the ligature, so as not to pierce the Edmata?

How wd you treat an incised wound of the belly?

Supposing a piece of intestine protrudes?

If the intestine were divided, cut transversely or if cut right across what wd you do ?

Would you return it without any other precaution than making the Suture ?

Suppose you find on the discharge that the gut was wounded but did not know where wd you cut or dilate to search for it ?

What directions wd you give for such a patient I mean where there was an uncertainty as to the wounded intestine, but you knew a wound did exist ?

Pray sir why is it proper to keep the bowels open, & enjoin their perfect rest ? That the parts may unite. —

Suppose the Omentum or Mysentery be cut, & its artery also wd poured forth blood. how wd you stop it & treat it ?

And if an Artery in the Mysentery or Omentum be wounded wd you cut off the ligature close to the Knot as in wounded intestine ? Noccertainly not, for an abscess wd inevitably form. —

How wd you treat a wound in the Anterior part of the Cavity of the knee?

Why wd you prefer the adhesive plaister to Stitches?

Sometimes the Articulating surface of bones & soft parts are injured, do you suppose in this case that the simple treatmt of Ad: plaister, & keeping the limb extended wd be sufficient? Yes Sir –

What is the consequence of Contused wounds not uniting by the first intention? Inflammatn Fever, discharge of the Synovia, Pus, & the formation of abscess – Anchylosis is the best termination of the disease – Sometimes the Constitution becomes fairly worn out & death ensues. –

What is the process of Nature by wh Anchylosis takes place? First absorption. Cartelage &

Wounds of Nerves, Tendons & Veins. – What symptoms do you immediately produced from the puncture of a Nerve? A sharp severe pain & numbness are instantly felt.

Are these Symptoms immediate? Yes

Suppose a tendon be cut in half, how wd you treat it?

If the tendo Achilles be cut, how wd you place the foot?

The skin requires particular treatment dont it?

In certain operations dont you suppose tendons as well as nerves are cut?

Do any severe symptoms attend the wounds of Tendons? They are not often very severe. —

In what situation do these severe Symptoms take place & occur when the Aponeurosis is wounded? In the thigh & Cranium. —

What remedies wd you use to relieve inflammatn Spm a punctured tendon?

Well at times it happens that violent inflammatn occurs in the arm after Op. what wd you attribute this pain to — Wd shew an Erysipelatous black colour, the patient can scarcely extend his arm - now I say, what do you attribute this inflammatn to, & where does it commence? It commences at the Orifice & spreads

x nunubuesp

in the internal surface of the Vein. —

How do you know this to be the fact? By dissection, we see the inflammat^n upon. —

What other remarkable appearances are there? Adhesion. —

How can you tell whether a nerve is injured or not in Op.? ~~No. for~~ The symptoms will be immediate —

If this numbness don't occur for 2 or 3 days after the operation will you attribute it to a wound in the nerve? No. for the symptoms will be immediate — It arises probably in this case fm a wound of the Coat of the nerve, the symptoms go off in a few days — The part with the injured nerve lead to always suffers a Para-lysis — I have known the motion of the thumb lost in this way — The arm is often swollen

What does this inflammat^n arise fm? From the orifice not being properly closed —

Do you suppose it proper to cut down to the bone?

What bad effects wd arise frm this operation?
Death. —

What remedies were formerly employed for the cure of inflammatn of the inside of the vein? Cupping, Leeches, Lead water &c

With what view wd you use compression?
To unite the Surfaces. —

If great, what bad consequences wd result frm this mode of treatmt? How wd prevent healing, pus wd form &c. —

What bad consequences most commonly take place after this inflammatn? Stiffness of the arm —

What remedy has been most successful? A blister — Stiffness of the arm very commonly occurs in inflammatn of the veins

— On Gun-shot Wounds. —

What is the nature of a Gun shot wound Sir?
Is a Gun shot wound Poison?
Why was it formerly supposed to be poison?
Because the edges were black & sometimes Sloughed

Does the velocity of the Ball make any difference in the wound?

In what condition is the flesh at the sides of the wound, supposing the velocity of the Ball to be little? The parts will then be simply torn open.

Is this difference in the velocity of the Ball exemplified by its entering, & place & exit? The part where the Ball enters is more contused — this part sloughs, while the part at wh the ball makes its exit, heals. —

Suppose a man received a wound near some large bloodvessel, as in the thigh for instance, & there was no bleeding, wd you give any particular caution?

After sometime however hemorrhage occurs, how wd this hemorrhage take place sir? From the parts sloughing by the absorbents seperating the dead parts

Wd you dilate every Gun shot wound?

What circumstances renders dilatation necessary?

Suppose a bullet glanced on the Skull, & the Skull appeared to be injured on the symptoms of

compressed brain existing w^d you dilate? I w^d dilate to ascertain the fact whether the skull was injured —

If^d you dilate merely to cut out a Ball? No

If^d you bleed every patient who had a Gun Shot wound? Not without inflammation —

What mischief w^d result fm this indiscriminate use of the Lancet? Tetanus. —

If inflammat^n did not exist what w^d you do to excite it?

A blister is often necessary in inflammat^n —

On Wounds

How do you divide wounds?

What are the varieties of a contused wound?

Which bleeds most, an incided or contused wound?

What is y^e first object in treating a wound?

Suppose 3 or 4 Arteries were cut, on y^e first entrance into the room what w^d you immediately do?

What w^d you do next after applying y^e thumb?

Where w^d you apply the Tourniquet?

Supposing the wound high up in the groin

what wd you do then?

After you have commanded the Hemorrhage what wd be yr next step? Warm water -

How wd you apply the ligature?

Suppose the bleeding orifice of the vessel could not be seen, to pull the artery out, How wd you proceed then? Feel for the Artery -

How wd you proceed, if a vessel were divided in the Fauces, & you could not apply the Tenaculum? -

After the Hemorrhage has been thus commanded, yr next step is to dress the wound, this shd not be done until the Hemorrhage both in the large & small vessels has been stopt, & the oozing of blood frm the small vessels also, if this be not attended to. the blood will become putrid - Remove all clots of blood - When extraneous matters, as ligatures are left the whole of the divided surfaces shd not be brot close together - Spaces shd be left for pus to escape when suppuration takes place. I have cut out a tumour wh healed by the first intention, &

I at the first dressing the dressings shd be in their order -

1st Adhesive plaisters on linen or muslin
2° A Pledget over that spread with mild cerate.
3° Over that place tow
4th Secure all by a bandage. -

When ligatures are left in a wound, bring them out as much as possible at one part of the wound - The Surgeon shd strictly attend to the position of the Patients limb, it shd be that wh most relaxes the flesh on each side of the wound — There are but 2 sutures, the interrupted & Twisted - The first is adequate to all cases except the Hare lip where the twisted is to be used - The interrupted suture is a mere Stitch, But you shd recollect that the knot must not be tied over the surface of the wound, but on one side. In using sutures in wounds of the Scalp care shd be taken not to draw the edges of the divided scalp too close before inflammatn & tension have occurred, as you may expect suppuration, for Delirium - Head ache &c wh arise frm a contrary

practice – Also when the integuments of the scalp are much torn, in making y^e^ sutures, a space of an inch & a half sh^d^ be left between the edges of the divided skin. In punctured wounds, for instance when the knee is punctured, the pain y^e^ is often in the Epigastrium, is immediately relieved by dilating it – You sh^d^ dilate wounds always when matter is formed. –

Questions on Ulcers.

What is the appearance of a common ulcer?

What are granulations sir? Small red round points or grains

What is their Colour? A Pale or florid red. –

Of what consistence is the Pus of an healthy ulcer? Of the consistence of cream & of a straw colour –

When free suppuration has taken place, there is a considerable diminution of the size of an ulcer (say for instance a wound) how sir does this diminution take place? From the absorption of Coagulated Lymph. –

Have granulations any tendency to unite?
Here is another property what is it? To contract
I mentioned having seen this contraction re-
markably exemplified in an operation, do you
recollect what operation it was? Extirpation
of a Cancerous breast

Is there any limit to the growth of granulations?
After granulation what is the next process?
Where does this process of Cicatrization begin?
From the circumference to the Centre, & in old
ulcers in the Centre. —

How do you treat a simple ulcer?
Do you recollect what Mr Baynton ad-
vises?
Is there any caution necessary in apply-
ing these strips of adhesive plaister?
How do these strips of adhesive plaister af-
sist?
What inconveniences & injury wd result
from applying these strips too close? They will in
that case increase the ulceration, & impede the
restorative process. —

I mentioned that ulcers were sometimes back-
ward in forming new skin, how wd you expe-
dite it in a small ulcer? By exposure to the
air. If the sore be of a larger size, Brandy,
Galls- astringent applications &c

Ulcers on the legs are prevented from healing,
from what circumstance sir? By the gravita-
tion of the blood, & the diminished circulation —

How are they prevented by this diminished
Circulation &c?

What appearances do ulcers assume from exercise?
What mischief arises from it?
What is the other impediment to the healing of
ulcers? An Oedematous state of the limb. —
How wd you treat such a Patient?
Why wd you recommend an elevated limb?
Wd you recommend the same posture in Oedema?
Can any mechanical support be given to
such a Patient? The laced stocking & Roller
Wd you prefer the laced stocking to a Bandage?
What time in the 24 hours wd you apply the ban-
dage? in the morning. —

Why at that time —

Ulcer of Varicose Veins.

In what manner wd you treat an Ulcer of a varicose vein Sir?

Where abouts wd you take up the Vena Saphena?

In what manner wd you perform this operation?

What instrument is the most convenient? A pointed knife. —

After you have made the section of the Skin wd you only tie the ligature & do nothing else?

How long wd you leave the ligature?

How wd you get it a way?

Is there any contrivance by wch the removal of the ligature is facilitated? The Lint

I wd ask Sir what what caution is necessary in making the section of the Skin to apply the ligatures?

Questions

Questions on Fractures.

What do you mean by a fractured bone?
How do you divide fractures? simple & compound.
There is another species sir? Compound simple
What do you mean by a simple fracture?
What do you mean by a compound fracture?
What is a Compound simple fracture? The wound is small, communicates with the Cavity of the fracture & cant heal by the first intention.
In treating a simple fracture what wd you first do?

What are Splints?
What are they made of?
Would you apply splints in fractures of 1 or 2 days standing, & after inflammat^n had taken place? They wd increase the swelling
What remedies wd you use in this situation in a simple fracture? Ans. Antiphlogistic plan.—
Would you purge a Patient much?
What wd you apply to the swollen parts?
In fractures it sometimes happens that the

bony fragments do not unite by a bony union, what operation has been proposed to effect this? Sawing off the ends of the bones. —

Is this ever fatal?

Does it ever fail of success? Yes

What method has been successful?

How wd the Seton operate?

In what manner do you suppose sir, the simple fracture wd unite? By the blood forming a Coagulum &c

What next happens to this Coagulum? Cartilage. —

Well sir what next? bone —

Is this Cullens Vascular? Yes, & sensible also

How is a Compound fracture united, for here the blood you know is lost? By inflammat.

The flow of blood is often considerable & your first object is to stop the hemorrhage, but suppose the hemorrhage could not be got into view (say for instance, in the Posterior Tibial Artery) what operation in this case has been performed? Amputation. —

Do you suppose it proper ?
What operation is best ?
If that shd not succeed is there any other method wh wd answer ? Tying up the artery. —
At times sir the hemorrhage takes place fm an artery running in the middle of a bone as large as a goose quill, what wd you do in this case?
Cedar Plugs
Has this mode of stopping a hemorrhage ever answered ? Yes after an operation —
What circumstances wd induce you to determine on the amputation of a limb ? —
Suppose you had determined to amputate on acct of a compound fracture, wd you perform the operation immediately, or wait ?
Why wd you perform it directly ? The Patient wd have his limb suppurating, & he wd suffer all the inconveniences arising fm a dangerous fractured bone, whereas if directly performed he wd have to struggle with the effect of the operation alone.

Fractures of the Nose. —

Is the nose ever fractured in front sir ?
How wd you ascertain the bones of the nose to

be fractured? By the fragments being depressed

How wd you proceed to elevate the depressed fragments?

Having placed the bones in apposition, is there any fear of displacemt? No

Why is there not? Because there is no muscles to displace it

How wd you dress it?

What inconveniences wd result frm leaving the bone in this depressed situation?

Lower Jaw

The lower jaw is sometimes fractured Sir, what part is most frequently so?

It may however be fractured in almost every direction may it not? —

Is the coronoid process very often fractured?

Why not, how is it protected?

The Condyloid process is sometimes fractured, by what means wd you ascertain it?

In general the fragments are easily replaced Sir, but is it always the case?

Suppose the teeth are loose opposite the fracture wd you extract them? —

Why wd- you avoid it ? Air wd- get in, & you wd convert a simple fracture into a com-pound one

What inconvenience wd- result fm its becom-ing a Compound fracture ? Perhaps Death

Do you suppose the extraction of the loose teeth wd- be of any advantage in enabling the Patient to take nourishment ? The danger wd too far counterbalance any advantage. —

How wd- you manage them with the teeth ? Put them in their places & in apposition. —

Having placed the fragments in apposition how wd- you keep them so ?

What object wd- you have in view in apply-ing the Roller ?

Would you apply a Splint along the Basis of the Jaw ? Never necessary

What wd- you substitute in its Stead ? Ad-hesive plaister spread on leather. —

How wd- you nourish y- Patient ? Milk, Sago &- constitute the proper Food. —

Fractures of the Vertebræ

These fractures are generally fatal Sir. But in what situation are they most so?

How do they prove fatal?

Suppose the fracture is lower down in the Cervical Vertebræ is that also fatal?

What symptoms characterise this accident?

What are the causes of this Paralysis, & loss of sensibility?

Do you suppose that there is generally a dislocation of the bone? Yes & this causes pressure.

How wd you treat such an accident?

There is one caution Sir particularly necessary, do you recollect what it is? Drawing off the water by a Catheter. —

When the fracture is lower down, Patients survive longer, but what mischief do the soft parts sustain for pressure in bed? —

Fractures of the Clavicle. —

What are the symptoms wh distinguish fractures of the Clavicle?

In what manner is the Fragments displaced? Without, inwards & downwards towards the Sternum.

What pulls the Scapula Fragmt down? The weight of the arm

How do you counteract the effect of the Pectoral muscle? By a pad

How do you counteract the weight of the arm in pulling down the Scapula Sir? By a Bandage to support it

Fractures of the Acromion Scapula.

What part of the Scapula is most frequently fractured Sir?

By what Symptoms do you ascertain the existence of this Fracture?

How is the Fragmt displaced? Downwards & forwards

How is it pushed upwards? By pushing the head of the Os Humeri upwards.—

This fracture is easily reduced Sir but how do you keep it do? By a Bandage passed under the elbow & over the shoulder.—

How wd you discover a fracture of the Angle of the Scapula?

Where wd you apply yr hand to feel it? At the basis of the Scapula. —

How wd you proceed to bring the fractured surfaces of the bone in apposition?

How do you retain it in that that position?

Why wd you not rather push the angle upwards? Because it could not be retained in that way, the bone is so small. —

Fractures of the Os Humeri. —

In what way do you discover a fracture of the Os Humeri Sir?

How wd you treat & dress such a case?

It is necessary to examine the bone often Sir what advantage results from this examination? Replacing the bones, if they shd be displaced

At times the Os Humeri is fractured near its head is it not Sir, how is the inferior fragmt displaced? Directly towards the Chest. —

How do you ascertain the existence of this ac-

cident?

How do you treat it? By using extension & counterextension, pushing the inferior fragment out of the Axilla by means of a Pad applying 3 Splints, & round them Bandages.

Does a Fracture of the Head of the Os Humeri, or near its Head, much resemble a dislocation of the arm at the shoulder joint?

How do you distinguish?

Suppose the Fracture was near its Lower extremity just over the Condyles, how wd you treat the accident?

Why wd you think it necessary to fix the fore arm? It prevents the derangement of the fragments. —

How do you proceed to treat a Fracture of the fore arm? Extension Counterextension &c

Is there any caution necessary in applying the Roller?

If very tightly applied Sir what bad effects wd result? Swelling & perhaps the Fractured extremities too close together. —

Fractures of the Os Femoris. —

What appearance does a fracture of the Os Femoris assume, or what characterises this fracture? Does this shortening of the limb always occur? No What occasions it? The contraction of the Muscles

It has been proposed by Mr Pott to bend the leg has it not sir? what view had he in advising this. To relax the Muscles, & prevent their inordinate contraction. —

What position was the body placed in by Mr Pott? On one side

In what position was the leg? Inwards towards the thigh. —

What objections are there to placing the limb in this position? You are unable to tell the length of the limb, the patient has fewer points to rest on &c

Do you suppose you could confine a patient constantly in this position? No, he wd certainly turn on his back —

What inconvenience wd result frm a change of position? A displacemt of the fragments

What other Arguments have you for supposing

the strait preferable to the Cent position? the relation of a patient

Do you suppose a bandage round the Fractured thigh wd keep the Fragmts in apposition?

Why not? Because it is too thickly covered with muscles.

What plan wd you adopt then to keep the fragments in their situation? Despaults with some modifications

What are the chief parts of the apparatus of Despault? Two long splints.

What kind of bandages wd you use? Strips

Why wd you apply strips? because they are more conveniently applied & removed.

Having applied the long splint on the thigh, how do you effect extension & Counterextension?

What kind of bed wd you put yr patient on?

How many pillows wd you use?

What bad effects wd arise frm having too many?

The patients feet wd get out of bed & thus derange the fragmts

What advantages results frm lengthening

the Splint of Despault ?

In what way does it prevent these bad consequences ? By acting in the direction of the bone. —

What inconveniences result from the bandages acting Obliquely ? It draws the fragment directly outward

Another advantage attends the Splint being as high as the Axilla, do you recollect what it is Sir ? It lessens the pressure of the bandage on the Perineum & Groin. —

After the bandage for extension is applied, wd you draw it tight to pull down the lower fragment ? No. —

Suppose the muscles contracted violently & drew up the upper fragmt how wd you act in that case ? I wd draw it moderately tight

What wd you do the next day ? I wd increase the force at each successive day. —

What inconvenience results from drawing the extending bandage too tight in the first instance ? Pain

And what else Sir ? The Skin on the foot & posterior part of the leg is excoriated, a slough

Ulcer is formed.

Is there any Machine wh answer better for extension than a Handkerchief?

What sort of Apparatus is it? Buckskin Leather

Why does it answer better? Because it presses equally on the Anterior part of the foot & posterior part of the leg

What symptoms Characterise a Fracture of the neck of the bone?

What species of luxation does it resemble? a luxation upwards & backwards. —

What apparatus wd you apply? Desaults

How long wd you let it continue? 3 or 4 months

Fracture of the Condyles of the Femur

In what way are the Fragments displaced in a Fracture just above the Condyles? Upwards & backwards. —

How do you treat this accident?

Why wd you use a pillow to support the leg?

The Condyles are at times seperated from one another are they not? How wd you treat such a case

What symptoms Characterise a transverse

fracture? Cant extend the leg nor walk forwards.

What other Symptoms are there? You may feel the seperation

What causes act upon the Fragments producing a seperation in a fracture of the Patella?

What acts on the lower Fragments? It is Stationary & keeps its distance frm the Tibia -

To counteract these 2 causes of displacement in what position wd you place the limb? -

How do you retain this posture?

Relate sir exactly how you wd treat this accident?

Why wd you apply a bandage to the Ankle?

Why wd you put a Splint on the posterior part of the leg?

Why wd you carry the bandage up to the Hip? To counteract the extensor muscles —

How do you secure it? By a roller. —

How do the Fragments of the Patella unite? By ligament

What advantages attend the union by ligament?

Are there any means by wh you may facilitate this union? Yes by extending & kicking against the wall. —

Fractures of the Bones of the Leg. —

What symptoms Characterize a Fracture of the bones of the leg? The Angular projection &c

How do you dress a broken leg?

Why wd you use extension & Counterextension? To draw the fragments in opposition. —

What wd you do next?

What kind of Straps? You mean Strips?

What wd you put on next? Splints —

How long wd you have these Splints? To extend beyond the Sole of the Foot. — You wd always soak them in warm water before you apply them to the sides of the leg, & you wd secure them by another bandage of Strips, & you wd further support the leg by 2 pieces of Wood, or a Fracture box

Is permanent extension necessary Sir?

How do you keep up continued extension of the leg? By the tapes below the Knee, Splints &c

How do you effect extension Sir? By the bandage wh is tied under the Sole of the Foot

When is it necessary to resort to this treatmt?

What inconveniences result from this mode of dressing?

How does it produce the Swelling? By stopping the circulation & pressing on the Lymphatics

How do you counteract this effect? By using the many tailed bandage from the ankle to the knee & applying a long splint. —

The Tibia is sometimes fractured alone is it not sir, & is this fracture easily discovered? — Much difficulty

By what symptoms do you ascertain the existence of it?

Is the patient ever able to walk? Yes the fragments support each other. —

How do you treat a fracture of the Tibia alone?

Would you apply the paste board Splints wet or dry?

Why do you apply them wet?

Is there as much displacement when one bone is broken as when both are?

Where is the Tibia most frequently broken?

What is the most frequent cause? A violent abduction or twisting of the foot. —

The foot is continually turned out & disfigured in another place, do you recollect where Sir?

Exactly opposite the fracture

How do you place the fragments in their proper situation?

If the foot be first fixed properly, the fragments will be also placed in their proper situation, a proof of this that the lower fragment moves with it — What caution does this suggest? That the splints shd be applied long enough to keep the parts perfectly at rest. —

Questions on Dislocations

In what direction is the lower jaw dislocated? Forwards. —

What are the symptoms wh characterize it?

How wd you proceed to reduce it Sir?

How do you distinguish a luxation of the Clavicle?

How do you treat this accident? By a bandage over the shoulder & under the elbow

What appearance does the Os Humeri exhibit when it is luxated — It is drawn downwards & inwards

How do you set about reducing such a luxation?

How do you apply the force for Counterextension?

Would it not answer very well to take hold of the elbow for this purpose?

Why not? Counterextension wd be made on the Trunk, & the extending powers wd be on the Scapular attachment to the trunk & not on the Shoulder

Suppose their sh^d fail Sir? I wd bleed — You wd employ 2 or 3 Assistants first?

Suppose the luxation had existed for several weeks & the muscles had ceased to contract involuntarily — What impediments wd you have to overcome?

How wd you overcome these impediments?

How wd you apply the force for Counterextension in an arm so circumstanced? By taking hold of the elbow &c

How wd you make the Counterextension? By a girth on the Acromion Scapula. —

Is there any management necessary to keep this girth in its proper situation & prevent its slipping?

Questions on Wounds of the Scalp

What are the appearances of the Scalp after having received a Contused wound?

What idea does it convey to an inexperienced examiner?

Is it right to cut thro' the Contused parts?

Under what circumstances is it necessary & when is it not? What symptoms of compressed Brain occur.-

How do you treat contusions of the Scalp? As other Contusions. Cold water Cold vinegar &c

What directions wd you give as to the particular treatmt of such a Patient?

With what view wd you direct the Antiphlogistic plan of treatment? To prevent the accession of inflammat.n

How wd you treat a contused wound of the Scalp?

Suppose the Scalp be largely torn how then?

You wd first get the hair off together with dirt, & other extraneous matter, you wd return it in its proper situation & keep it so by adhesive plaisters or Sutures

In applying Sutures wd you draw the edges close

close in Contact?

What inconvenience results from this? Abscess &c

Do you never cut off the Scalp? No

Contused wounds of the Scalp occasion much pain do they not Sir, & they continue for a long time; Well, is there any remedy which proves successful? The Crucal incision

Does it always prove successful? No —

From cases which I have mentioned, it appears that no medicine can cure this Complaint, but does it appear to wear off by time? Yes. —

What symptoms Characterize depressed Brain? The full pulse is no Criterion Sir, for it is often far from full, being small. —

There is another symptom Sir? Dilatation of the Pupil — This does not always occur for I have seen it small. —

When the Brain is injured by external Violence what causes the Compression? The bone being driven in or Extravasated Blood. —

When Compression arises from the bone being driven in, are the symptoms immediate? Yes

When Sps effused blood, are they always immediate? Never

Are the Symptoms of compressed brain ever absent when a portion of the Cranium is compressed? Yes sometimes. —

When Symptoms of Compressed brain exist what wd you first do? Examine the injury — You wd first shave the hair sir

The wound is sometimes large & you may examine directly, but when not how wd you do?

What instrument wd you lay bare the bone with? A Rasparatory. —

Suppose the bone was fractured & driven down, what wd you next do? Trepan

With what view wd you apply the Trephine? To raise the depressed portion of bone. —

There is another reason sir? To suffer the effused blood to escape. —

Would you apply the pin of the Trephine on the depressed portion of bone?

Where wd you apply it?

In performing the operation wd you constantly

keep the pin of the Trephine beyond the Circular saw?

Why not? Because it wd pierce the Dura Mater

When wd you remove the pin? As soon as there was a groove made sufficient to steady the saw

Which Trephine wd you prefer - the one with the pin screwed to it, or the one not?

Would you prefer the Trephine wh is a portion of a Cone to the one wh is a portion of a Cylinder? No -

In performing the section with the Saw, is it not necessary to be very cautious?

How can you tell when you are perforating the bone? By the Tooth pick. -

Why do you use all this caution? For fear of injuring the Dura Mater. -

Would you continue the section of the bone with the saw until you had pierced thro', & got the inner table completely loose? No

Fragments are always left, how do you remove them? By the Elevator. -

An instrument very unnecessary was formerly used, do you recollect what it was Sir?
A Lenticular. —

How wd you dress a wound after the operation of Trepanning? By a bread & milk poultice.

How did the older Surgeons dress it? By lint

What disadvantage attends this? It gets Coagulated with the blood & sticks fast to the wound.

What inconvenience attends the adhesion of the lint? You are unable to examine the Dura Mater

How wd you manage such a wound?

Would you unite the edges of the Scalp in every case? If the symptoms were unfavourable I wd not.

It sometimes happens Sir after you have operated with the Trephine, you find an extravasation of a fluid beneath the dura mater, by what Symptoms wd you judge that this extravasation did exist? By the Colour of the dura Mater — That is one Symptom Sir what is the other? Its convex form. —

Well Sir there is another? You never see the pulsation of the Vessels, & the alternate falling

& rising of the brain in inspiration & expiration
This sinotion of the brain is produced by the in-
fluence of the circulation on it. & in the sound
brain or Dura Mater, we find it falling in in-
spiration & rising in expiration. —

Suppose you thot there was an extravasatn
of fluid under the Dura Mater. How wd you
proceed then sir? If the symptoms of compression were
very great, & existed in a high degree, I wd perforate.

How wd you perforate the Dura Mater? By
a Lancet. —

For what purpose wd you do it? To evacuate
the extravasated fluid. —

Is this operation attended with any bad Consequences?

What is most generally the Consequence? Vio-
lent inflammatn

Inflammatn of what sir? Of the brain itself. —
The Dura Mater ulcerates, & there is a fungous
tumour &c produces suppuration in the brain
proving fatal in 8 or 10 days. —

Has any patient ever recovered after the per-
foration

foration of the Dura Mater.? Yes. - When you find that the dura mater has been perforated by fragments of bone, or if it has not, you dress the wound directly after the operation, & bring the edges of the divided scalp together, at anyrate a portion of the scalp directly over the wound of the Dura Mater, with an expectation of the wounded scalp adhering to the Dura Mater. I have three lately treated a case with Success

The older Surgeons objected sir to applying the Trephine in several places. do you recollect one.? Over the Sutures -

What was their reason? Because the Dura mater adhered more firmly there & they were afraid of wounding the Longitudinal Sinus. Do you suppose if you were to wound the longitudinal sinus it wd prove fatal? No

How wd you treat a wound of the longitudinal sinus? By moderate compression

Compression with what sir? With dry lint the blood wd coagulate & the hemorrhage be stopt

Well sir they were afraid of another place?

The temporal bone

Why were they afraid of that? Fearful of locked jaw Has it ever produced locked jaw?

What rendered the jaw stiff tho' Lar it not! Yes —

They were afraid of another place? The Occipital bone

Why? becaude it was uneven & they dreaded the sinus

Having trepanned y^r patient Sir, it is necessary still to be very attentive to him is it not? & what regimen do^s you prescribe? V.S. Purge low diet &^c After you have elevated the depressed bone after the extravasated blood has been evacuated & all the symptoms of compressed brain have ceased what danger still remains? Of the inflammat^n of the Dura Mater or brain —

How do you judge when inflammat^n is about to take place? By a febrile pulse, a flushed face, a pain & tightness in the head, sickness at stomach, at times vomiting together with a hot skin

When these symptoms occur what do^s you

do then? Bleed, Purge & the Antiphlogistic plan

How wd you be governed by a repetition in your bleedings? As long as these inflammatory symptoms prevailed

How many times a day did I say I have bled? 4 or 5

At times tho' notwithstanding all these evacuations, the pulse still continues febrile, the Patient senseless, & none of the symptoms abate, in this case sir what powerful remedy wd you next employ? A blister to be sure —

Blisters have succeeded have they not? Yes — at times the inflammation of the Brain is the consequence of some fluid effused (most probably serum) between the Pia & dura Mater

Is it proper sir when symptoms of Compressed brain exist always to perforate the Dura Mater? No —

How then? I wd use antiphlogistic remedies

Have they ever succeeded? Yes

By what symptoms sir do you distinguish compression frm inflammatn of the brain; or how do you distinguish the symptoms of com-

prefsed brain frm those wh characterize an inflamed state of it? When the brain is compressed the symptoms are immediate, when inflamed they don't occur for several days. —

Does the inflammatn ever arise frm simple Contusion without a wound of the Scalp? Yes —

What appearance does the stricken part exhibit, for instance if a man receive a blow in the side of the head so as to produce symptoms of compressed brain? The part is tumefied & soft. —

Well sir when it is cut open, laid bare, what then? The Cranium is changed to a white colour

Is it proper now to Trepan? Ayes

Why do you make a perforation? To let out the extravasated ~~matter~~ blood, for if it were confined it wd produce ulceration of the Dura Mater

Does matter ever exist under the Dura & Ra Mater? Ayes. —

Questions on Fistula Lachrymalis

What sir prevents the passage of the Tears frm the eye into the Nose?

Where are the Puncta Lacrymalia Situated?

What ducts lead frm them? Two small ducts

wⁿ pour their contents into the Lacrymal Sac

Where is the Lacrymal Sac situated? In a depression in the Anterior part of the Os Ungvis.

When the tears get there where do they pass?

Where does the Lacrymal duct open? Under the inferior turbinated bone.—

In what sir does the disease of Fistula Lacrymalis consist?—

How does it first shew itself?

What are the effects produced by pressure?

How does the fluid pass frm the Puncta Lacrymalia into the eye?

What advice wd you give to a Patient who had a tumefaction in the inner Canthus of the eye, wch by pressure was easily evacuated? I wd direct pressure to be employed—

Suppose the Sac was inflamed frm distention, or frm cold, or frm both these causes, & an abscess opened externally, how wd you treat such a patient? I wd pass a probe into the duct.—

Suppose no instrument could be passed thro' the Ductus ad Nasum to the nose what wd you do then? I wd proceed to the Operation.

How wd you make an opening into the Os Unguis? By a punch

Why wd it not answer as well just to make a hole thro' it? Because the parts wd be torn into fragments, & wd reunite.—

What advantage arises frm making an opening into the Os Unguis by means of a Punch? One principal advantage is that you can close the external wound.—

Questions on Cataract.—

What is a Cataract?

Can this Opacity of the Crystalline lens or its Capsule be easily removed, or does it ever go off spontaneously?

It is necessary to perform an operation then is it not; well what operations are there?

What do you mean by Depression?

What do you understand by extraction?

How do you perform the operation of Couching?

What instruments are necessary? A Cornea knife, a Speculum & Needle

Why do you have the Cornea Knife very sharp

Sir? The wound will heal more readily —

Having introduced the Cornea Knife what next is to be done? The needle is to be passed behind the Iris before the Capsule of the Crystaline Lens, & that depressed, carrying down if possible all the Opaque matter by the Needle

On Laryngotomy. —

Where wd you perform the Operation for Laryngotomy Sir?

Where wd you make yr first incision? I wd make a longitudinal incision between the Cricoid & Thyroid Cartilages. —

What wd you introduce after the incision? A pipe.

What attention is necessary to this pipe after its introduction? Frequent Cleansing. —

Why Sir? To clear it for Mucus. —

Suppose Sir you had a Patient who had a piece of money, or a peach stone lodged in his Oesophagus, so as not to get to the Stomach what do you suppose wd be the cause of its retention there? A spasm.

What wd you do then? I wd use a Probang —

Well if that failed what next? I wd use a Solu-

tion of Tart Emetic

How does that operate? By producing nausea, & thus relaxing the Spasm.—

On Polypi.—

How many modes of extracting Polypi are there? Three.—

Which are they? By forceps, by ligature, & by cutting it away.—

Which mode is the best? That by forceps

Why do you prefer that? Because it often tears away the very root of the Polypus, & even at times the inferior turbinated bone.—

Suppose the Polypus projected into the throat & you had fixed a wire round it; what caution is necessary at or about the time you effect it to seperate? Tying a ligature if possible around it, or pulling it by a hook every day.—

On Hare Lip.—

How do you perform the operation for hare lip?

What wd you do in the first instance?

Can the incision be best made with a pair of scissars?

How wd you dress the wound after the edges

were cut?

Why wd you have steel points to y^r needles?
How long sh^d the needles remain in?
How many wd you have?—
Having passed them what wd you do next?

Questions on Hernia.—

Where does the Epigastric artery run sir as it respects the Hernial Sac? It runs on the inside of the Hernial Sac

What do you mean by Hernia?

Is the term rupture a proper term, or is there any rent of the Parts? — A.

Where do the parts pass down, thro' natural openings or not?

When the protrusion is at the Naval, what is the term?

When at the Groin what? Bubonocele.—

When at the under Poupart's ligament?
Femoral Hernia —

What are the parts most commonly Contained in a Hernial Sac? Omentum & Intestine

When intestines alone are contained in the

Sac what is it termed ?

When both Intestines & Omentum what ?

Of what nature is that disease called Hernia Congenita, or how is it formed ?

The intestine Sir is in contact with the Testicle — Well what forms the Sac ? Tunica Vaginalis

How does this take place, at what period of life & what its Origin ? The intestine being drawn down, carries along with it that portion of Peritoneum wh forms the Tunica Vaginalis Testes

Now Sir for the formation of this disease ? The intestine is carried to the Abdominal Ring, & does this continue open after birth ? No

In some cases the closure of the Abdominal ring does not take place, in wh case crying, coughing, or any exertion will cause the intestine to pass at the orifice at the abdominal ring. thus rendering a child always liable to a rupture there called Congenital Hernia. —

What symptoms characterize Hernia Sir say Bubonocele ?

Well sir go on ? It is rough when Omentum is protruded, but smooth when intestine. —

Well sir? It commences at the Abdominal ring
Well sir? It is increased by coughing or any exertion of the abdominal muscles & diaphragm
What sensation does it give to the fingers? As if it were blown into.
Well sir there is another very Characteristic symptom, that every Surgeon sh^d know? It disappears on lying down & reappears when in an erect posture
What advice w^d you give to such a Patient? I mean where the tumour appeared on lying down? I w^d recommend a truss.
Pray sir what is a truss?
Having such an instrument how w^d you apply it?
How w^d you place the patient so as to return the intestine? I w^d not be thus particular if it were not of the greatest importance
Suppose sir you could not reduce the protruded parts immediately what w^d you do? I w^d bleed, prescribe low diet & purge.
What position w^d you keep the Patient in? A Horizontal position —

Suppose

Suppose after this Horizontal position, after Purging, Bleeding, & low diet you wd not reduce the intestine, after all these had failed what wd you do? A Suspensory bag. —

With what view wd you apply this Suspensory bag? To support the weight of the protuded parts, as they might descend by gravity to the knee. —

On opening or dividing the skin covering the Hernial Tumour what first presents itself: Or Sir what part is first exposed? The Fascia of the ling of the ettenal Oblique. —

After cutting thro' that what next Sir? The muscular fibres of the Cremaster Muscle. —

What next Sir? The Hernial Sac

What does the Hernial Sac consist of?

What vessel of importance lies immediately on the upper part of the Hernial Sac? The Epigastric Artery

What behind?

What is at the upper Orifice of the Hernial Sac? The Neck of the Sac. —

Is there ever any water there? Yes Sir.

How do you distinguish Hernia from Hydrocele? It is transpalent Sir. —

Ivele

Well Sir? fluctuation is evident

Well Sir? It is not altered by Coughing, or change of position —

Well Sir? It begins at the lower part & ascends up. —

Well Sir? I know what you mean Sir, you mean the Spermatic Cord can be felt at the upper part

How do you distinguish Hernia Sm Swelled Testicle? The last is hard

Well Sir, what is its shape? It is flattened on its Sides — Hernia is not

Well Sir? It is painful to the touch & succeeds Gonorrhoa

How do you distinguish Hernia Sm Venereal Bubo? The last is a permanent tumour; there is a Chancre on the Genital Organs; there is no interruption to Alimentary matter, & coughing or other Actions produce no effect on the Size of the Tumour

What are the Symptoms of a Strangulated rupture Sir?

What next Sir? The tumour is Hard

What other Symptoms Sir? It is painful to the touch & there is a hard Contracted pulse. — .

What next Sir? There is no discharge of Faces.
Is there never no discharge of Faces Sir? Never except those wch are contained in that portion of Bowels below the Stricture –
What next Sir? The patient cant stand upright & after a while the belly swells. –
Do these Symptoms Continue unremittingly or are there Intervals of ease? There are short intervals of ease. –
Suppose you were called to a patient Sir with these Symptoms where there was a very small tumour in the Groin (Bubonocele) wd the danger be as great as if the tumour were of a larger size, I mean where the tumour was recent & of a small size? The danger wd be greater for if the dilatation be large at the abdominal ring the probability is that the Stricture is less – So it is in an old rupture
What wd you first do in a patient so circumstanced? I wd try the Taxis. –
Suppose that failed? I wd bleed
If that? The warm bath. –
If that? Clysters of Tobacco. –
How do you prepare the infusion of Tobacco? Boy

pouring ℥j of boiling water upon ℈i of Tobacco
Would you inject the whole at once?
Has ℈i thus injected ever proved fatal? Yes
Suppose one injection failed do you repeat
it? Yes. —
What rule do you observe as to the times of
injection? ½ pint every ½ hour till sickness &
vomiting are induced. —
Does Tobacco answer as well as other Remedies?
Suppose that failed? I use ice
How do you apply it? By powdering it
& applying it in a bladder. —
Suppose you could get no ice? I use a
Solution of Glaub: Salts. & Sal Ammoniac in
water
Suppose that failed? there is still one pow-
erful remedy Sir? Opium
What position do you place the Patient in? In a
horizontal position, his pelvis being elevated
Suppose all these failed? an operation
What is the great object of this? what is
aimed at? Dividing the Stricturing parts
Well sir how do you decide when you are to
desist from these means (the Tobacco, Opium, &c,

warm bath &c / When the operation becomes necessary? After they have had a fair trial. —

Would you delay the operation? No

Why not? Mortification might take place

Does the length of time give you any indication as to the time of operation? No for life will continue fm 8 to 45 hours & even to 17 days. therefore when these means have failed, we shd resort to the operation

In case of Scrotal Hernia, what wd you first do? I wd shave the parts — No you wd prepare a Table, Mattrass & pillow

Well sir then after shaving the parts what wd you do? Make the incision, & posing the Fascia of the external oblique. —

What do you find next? The fibres of the Cremaster Muscle

What next sir? The Hernial Sac. —

How do you open the Hernial Sac? By slight cuts into it. —

Why is all this caution necessary? For fear of wounding the intestines

There is frequently some stone in the Intestine,

do you suppose that wd guard yr knife fm injuring the intestine? No. —

Having now made the perforation in the Hernial Sac & introduced yr probe what next? Iwd divide the Hernial Sac

But how do you divide it?

How do you continue to make the Hernial Sac longer? By using a Curved director then yr finger, & cutting to the bottom

Having opened the Hernial Sac what next? Iwd get admittance to the Stricture. —

What wd you do with that, or how wd you find where the Stricture was? By applying the finger to it. —

What next now? Iwd open the Stricture

With what? A blunt pointed Bistory

In what direction wd you make the Section of the Stricture? Directly forwards —

What advantage do you derive fm this? Avoiding the Epigastric Artery. —

What is the situation of the Epigastric Artery, as it respects the mouth of the Sac? On the inside

Having divided the Stricture what wd you

next do ? Examine the bowels. & if both intestine & Omentum were protruded. I'd return the intestine first. —

Suppose you had doubts of the parts being dead (say the Omentum) but concluded it was dead what w^d you do ? I w^d remove the mortified parts. —

How w^d you do it ? By a knife

Well, what w^d you do before you cut ? I w^d spread out the Omentum carefully sir & see that there was no folds of intestine in it. —

Then how w^d you make y^e incision ? A pair of scissars is far preferable Sir. —

It is difficult to know sir what parts of omentum are dead & what are living, now it is necessary to have some rule for you are to cut only sound parts; how do you judge of this sir ? The colour sir gives no indication for in one case the colour of the dead & living parts were precisely the same. This is of immense importance & the only way of judging what parts are dead, is that the blood in the dead parts is coagulated, pressure does not empty the contents, a

cut in the vein shews coagulated or grumous blood, & that part cut does not bleed — now if you cut a sound part, fresh blood will immediately issue out. —

Why wd you not leave any dead parts! Because it wd produce suppuration all around

After you have divided the Omentum sir & any Arteries shd bleed, what wd you do? apply ligatures. —

How wd you apply these ligatures? Taking care that they shd be long enough to extend outside of the wound. —

It is often possible sir to divide the Tendon of the external Oblique muscle without cutting into the Hernial Sac; well how do you perform this operation?

Well Sir after the director is under the ring & you have divided the tendon under the ring, then if the tendon formed the Stricture, it is easy to return the protruded parts. but if this shd not succeed, what cause do you suppose wd prevent? An alteration of the Parts in Size, adhesion to the Sac or to each other, or a Stricture at the neck

of the Sac
What wd you do in such a Case? Open the Sac

Questions on the Stone.

What are the Symptoms indicating a Stone in the bladder Sir?

Is the water uniformly obstructed?
How is the passage of the water influenced?
When suddenly stopped how is it caused?
What effects are produced by a change of position?

There is a Symptom of great importance wh occurs particularly in Boys? Itching of the Glans Penis. & thus rendering it by pulling elongated
There is another Symptom Sir? The discharge of pieces of Calculi with the Urine —

Do these ever stop the flow of urine? Yes
When from these Symptoms you suspect, By what means do you ascertain that a stone actually exists in the bladder — By Sounding
When the water is suddenly stopt. how do you cause it to flow? By a change of position
What effect does that produce? It causes the

stone to fall to the bottom of the bladder
Is sounding an unequivocal proof?
Can you tell certainly if you do not sound?
no. —
Do you remember any case in wh eminent
Surgeons have been deceived by symptoms alone?
a young lady had all these symptoms, & after
death they were found to proceed from a tumour
in the rectum. —
Are there any other affections wh produce
similar symptoms? Ulcers near the neck
of the bladder wh might be cured by Mercury
What do you mean by a sound Sir? An
Iron body bent so as to be accommodated to
the urethra. —
How wd you proceed to sound a patient?
I wd take hold of the sound in my right hand,
the Penis in my left — introduce it into the ure-
thra with its Concave side towards the abdo-
men & when I got to the prostrate gland I wd
turn it with its Convex side towards the Pubis
& depress the handle. —
Suppose you failed? Elevate the Pelvis. —
Suppose this? I wd introduce my finger oiled

into the rectum, pull down the anus, & keep the membranous part of the urethra on the stretch. —

When you have ascertained the existence of a Stone will any medicines remove it? No —

What remedies afford most relief? Lime water alkalies Carbonic acid & Uva ursi. —

As no medicines are capable of dispolving a stone, what becomes necessary? —

I wd wish to know sir how you wd prepare a Patient for this operation supposing him to be of a robust habit? Low diet &c

Well sir. suppose you had determined on the operation to-morrow what directions wd you give to the Patient? To take a dose of Castor oil, so that the intestines may be as empty as possible —

What directions wd you give to the family as to preparing things? I wd direct them to have at hand a dining table, Towels, Water, Sponges (those you wd carry in yr pocket) basons of oil, & to shave the Perineum. —

Well sir suppose it to be yr last visit at night, what directions wd you give to yr patient?

To retain his urine; if he could not, to tie a string round the Pedis. —

Well Sir, what instruments wd you carry? describe them in the order they are used —

1st Two fillets
2d A Scalpel
3d A sharp pointed Bistory
4th A Gorget with a beak ~~to fit~~ properly
5 A blunt & slightly curved Bistory. —
6th Forceps —
7th A Scoop
8th A Syringe, the pipe of wch shd be long enough to extend completely in the Bladder
9th Needles, Tenaculum, Ligatures, Sponges, & Patent lint. —
10th A Canula or flexible Catheter, if it be necessary to stuff lint into the wound. —
11th A double Canula to tie up the Pudic artery with if that be cut

Would you be content with one pair of Forceps? No

Now Sir, how do you perform this Operation? After the Patient has been laid on the table, the

grooved director previously oiled is to be introduced, & the fillets tied round the Patients Ankles & Wrists

How do you direct them to take hold of the Patient? By putting the Patients knee in their Axilla, & their hands on the leg.—

How is the Surgeon seated? before the Patient with a sheet over his lap.—

Well sir for the incision, where do you dip the point of the Scalpel? Just behind the Scrotum—

In what direction do you continue the incision? I wd continue it so that it may terminate halfway between the tuberosity of the Ischium & Anus—

What is the object of this incision?

What parts do you first divide?

How do you proceed with the incision? so as to avoid the rectum. & lay bare the staff—

You say you wd not cut the rectum. How do you avoid it? By pulling it out of the way

Well how is this incision to be continued? To be continued down.—

What is the next operation? To open the grooved staff.

What do you do it with? A sharp pointed bistory

the back being turned up. —

What do you do next? Put the beak of the Gorget in the grooved Staff

Well after this what is y^r next step? Your next step is to take the handle of the Staff in the hand of the assistant, being it at right angles to the body of the Patient, & then push the beak of the Gorget along the grooved staff, until it enters the bladder. —

How do you know when it enters the bladder? By the flow of urine

Now Sir what next? You take out the Gorget —

Well Sir? You then introduce y^r finger & feel for the Stone —

Well Sir you take out the Staff & what next? Then introduce the Forceps —

How do you open them with one or two hands? With two hands

Well Sir, in pushing in the Forceps do you incline the handle down or elevate them? I w^d elevate them —

Well Sir what w^d you do next? Introduce

y^r finger to feel if the Stone be in a favourable position for extraction

Suppose the Stone was broken into several pieces? I^w^d extract all w^ch were large enough to render it practicable, & wash out the rest by injections with a Syringe

If there were Hemorrhages fm any vessels how w^d you stop them? Take them up by a Tenaculum. —

If the Internal Pudic Artery be wounded how then? I^w^d run the Tenaculum under the Artery & tie the whole. —

Questions on Hydrocele

What do you mean by Hydrocele Sir?

How many varieties are there?

How do you distinguish Hydrocele of the Cellular membrane of the Scrotum fm others? —

There is some bagosity in the Skin of the Scrotum Sir, the tumour is equally divided by the Raphe, it is a Symptom of general Dropsy, & is always a part of the general disease of the Cellular membrane of the body. —

Are there any means by wh you can afford relief to this swelling? Yes—

What are they?

Have you any objections to making incisions in the Scrotum — do you approve of it? No

Why? Mortification might be induced. —

How do you distinguish Hydrocele of the Tunica Vaginalis Testis?

Where does it commence? At the bottom of the Scrotum Sir

Well Sir? It is diaphanous. —

Is it always so? No

What other Symptoms Sir? If the Scrotum be not much distended, you can feel a fluctuation

Can you feel the Testicle? No

Where are the Testes situated? At the back & inferior part of the Scrotum

How do you distinguish Hernia fm Hydrocele? The first begins above, the last below & coughing &c have no effect on Hydrocele &c

How do you distinguish the methods of

treating Hydrocele? Into Palliative & Radical

What are the Palliative? It consists in making punctures & drawing off the water

How do you do that? By a lancet, & pushing the Canula thro' the perforation

Why do you push the Canula completely thro' the perforation? If that were not done there wd be danger of the water getting into the Cellular texture of the scrotum —

The water will collect again will it not? Yes

Can this reaccumulation be prevented by any operation? Yes. —

What is the great object of this operation? To effect a radical cure, by causing an adhesion between the Vaginalis & Testes

Many methods have been advised Sir to cause this adhesion, will you name them? Caustic Seton & injection

How do you apply the Caustic? On the anterior inferior part of the tumour

How did the older Surgeons apply it? Over the whole of the Scrotum from top to bottom. —

Does it perforate thro' the Tunica Vaginalis Testes? Mr Pott says never

If the caustic dont perforate thro' what next? An incision — The Letter has been advised by Mr Pott —

How do you perform the Operation for incision sir? By making an incision in the anterior inferior part of the Tumour at the bottom

How do you dress the wound? You know you have laid bare the Testicle? Introducing dough.

Do you remember the improvement by Mr Hunter? Making an incision an inch long so as to introduce the finger & drawing out the sides of the wound by two hooks, when you put in the pieces of dough. It is customary to put a piece of lint over them, to prevent their slipping out

How does this act? It keeps the Tunica vaginalis Testes distant from the Testicle until inflammat^n & suppuration have taken place, & prevents the sudden & irregular collapse of the Tunica Vaginalis Testes wh^n w^d cause par=

tial adhesion. There are no folds & when ad=
hesions take place in one part, the whole ad=
here. When there are irregular adhesions, the
collection of water will return again - there is
another Advantage also, viz^t is that all the
dough is discharged -

Why w^d you not rather use lint! Abscess
& w^d occur. —

Questions on Aneurism

What do you mean by Aneurism Sir.!

Why is it called a morbid dilatation of the Artery?
Because the internal Coat is diseased before
the dilatation commences, & that causes the dil=
atation. —

How do you divide Aneurism? Into True
& False. —

What do you mean by a False Aneurism?
It is an injury done to the Artery, not a disease,
the Coats of the Artery are wounded & the blood
is found in the Cellular membrane, & forms
the Aneurismal Sac —

When this takes place what effect does it pro=

duce? It renders it susceptible of dilatation, the
artery loses the power of Contractility, & its Strength
is disproportioned to the momentum of blood
Will cutting an Artery by destroying its inner
coat produce Aneurism? No. —
What experiments can you adduce in favour of
this opinion? Mr Hunters —
How were they? By cutting the internal coat —
What effect had that? Recovered. —
What is the appearance of an Aneurism in
the Ham? The tumour Pulsates. —
As the disease progresses what? The swelling
increases & the pulsation is less perceptible.
Well what effect has the swelling? The tu-
mour enlarging presses on the Nerves —
And what effect is produced on them? pain
What other effects does it produce? By pres-
sure on the Lymphatics it causes swelling —
If it be not cured then what will be the re-
sult? An Eschar will be produced, a seperation
will take place & hemorrhage ensue
What operation did the older Surgeons have

recourse to for this disease in the Ham?

They applied a Tourniquet tightly round the upper part of the thigh so as to interrupt the Circulation

Then what next? They dissected round the Sac & cut into it, discovered the orifice of the Artery at the under & upper part of the Sac, laid bare the Trunk & applied a ligature just above & below. —

What inconvenience had this? The ligature being applied on diseased parts, hemorrhage ensued. —

What did they do then? Amputated

What is the operation as improved by Mr Hunter? He lay bare the Femoral Artery

Where exactly is the incision made? It was made 4 inches long, on the inner edge of the Sartorius Muscle

What part of the Artery is it y^e^ object to tie up? To tie it up just before it perforates the Triceps Muscle

How do you perform the Operation, do you

apply the Tourniquet tight ? No For as soon as the external incision is made, it is necessary to feel the Pulsation of the Artery at- you cannot do if it is applied tight . —

Well sir after the Tourniquet is applied loosely what next ? After making the incision already mentioned, you expose the Sarcia & turn the Artery on one side ? —

What next ? —

How do you prevent the ligature from slipping up . —

Finis

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